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MEN AGAINST EVEREST

Other Books By
ERIC SHIPTON

Nanda Devi
Blank on the Map
Upon That Mountain
Mountains of Tartary
Mount Everest Reconnaissance Expedition, 1951

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CONTENTS

<i>Chapter</i>	<i>Page</i>
1. The Discovery of Everest	11
2. The Way is Found	20
3. The First Attempt	36
4. The Tragedy of 1924	55
5. Frustrated Hopes	82
6. The Challenge is Taken Up Again	105
7. The Southern Approach	120
8. Success At Last	133
Appendix	151
Glossary	159

ILLUSTRATIONS

<i>Drawings</i>	<i>Page</i>
Mount Everest from the Rongbuk Glacier	24-25
G. H. Bullock, George H. Leigh-Mallory and Andrew Irvine	32
Rongbuk Monastery	38
Map	41
We were able to reach the top of the ice wall	48
Map, North Face	80
The Conquerors of Everest	89
An improvised rope bridge	128, 129
They cut their steps with ice axes	138, 139
Hillary and Tenzing set off up the ridge	144
On top of the world	149

Photographs

The great peak of Mount Everest	65
The cairn built in memory of thirteen men who died in their attempts to scale Mount Everest. Eleva- tion: 16,000 feet	66
The Pit of Death ("Chrongshay"), 20,000 feet up Mount Everest	66, 67

<i>Photographs (Cont.)</i>	<i>Page</i>
Fifty miles of Himalayan peaks. This is the highest altitude picture ever made	68, 69
Members of a British expedition toiling up a glacier .	70
An expedition's camp on the lower slopes of Everest .	70
Sherpa porters in the Himalayas	71
The conquerors of Everest: Sardar Tenzing Norkey and Edmund Hillary, in the outfits they wore when they reached the top of the world on May 29, 1953 .	72

MEN AGAINST EVEREST

THE DISCOVERY OF EVEREST

WHEN IT WAS ANNOUNCED on May 29, 1953, that Edmund Hillary, the young New Zealand climber, and the Sherpa, Tenzing, had reached the summit of Everest, it was not only mountaineers and explorers who were thrilled by the news. For thousands of people all over the world, it meant the end of a long story of endeavor which began a long time ago, and which from the beginning had captured their imagination.

Why did men want to climb Everest; why did they spend so much money and time on such an apparently useless project; why were they prepared to undergo such danger and hardship for no practical gain? The question, of course, is the same as asking why people climb mountains at all. The answer is difficult to give, partly because it is very hard to express, but mainly because it varies with each individual; it is rather like trying to explain such things as beauty or taste.



The Discovery of Everest

Some people regard mountains as a challenge to be overcome; by climbing them they experience a sense of personal triumph, and obviously the higher or more difficult the mountain the greater the sense of triumph. Others find in mountains a peace and serenity that they find nowhere else; the challenge to them is a secondary motive, but by exploring and climbing mountains and by mastering the art of moving freely on and among them, they can in a sense get closer to the country they love, they can understand it better, and so they can experience more fully the joy it offers. The same thing applies to the sailor and the sea.

For the general public, of course, the climbing of Everest had a special appeal. Everest is the highest mountain in the world and people regarded the attempts to climb it with just the same feelings of excitement as our fathers and grandfathers, who may have had no special interest in polar exploration, had watched the attempts to reach the North and the South Poles.

Mount Everest is not an isolated mountain standing on its own. It is one among thousands of other peaks of the Great Himalaya Range which stretches for nearly two thousand miles across the southern part of central Asia. To give you some idea of the tremendous extent of the Himalayas you should realize that the distance between Everest and the second highest mountain, K2 (28,250 feet), is about the same as the distance between Boston and Chicago, while the total length of the range is more than double that distance.

By far the most difficult parts of the world to explore



The Discovery of Everest

are the great mountain ranges, for the simple reason that travel among them is so extremely slow and laborious. It often takes weeks to cover a very short distance. For example, when I went from Kashmir in Northern India to Kashgar in Chinese Turkistan, a distance of only 370 miles as the crow flies, the journey took me nearly two months; and yet I was marching over a well-known trade route. In the unexplored parts of the Himalayas I have often taken a week to cover seven miles.

The survey of Himalaya was begun early in the last century by officers of the Survey of India. In those days the work was part of the Great Trigonometrical Survey, the purpose of which was to fix the geographical position and the height of the main features of the Indian Sub-Continent, in order to form a basis for the detailed land survey to follow. It included, of course, the fixing of the position and height of the main peaks along the mountainous northern frontiers of India. This was done by taking observations with theodolites (a theodolite is an instrument for measuring angles) to the summits of the peaks. These observations, which were usually taken at a considerable distance from the peaks, made it possible to calculate, by means of trigonometry, both the position and the height of the peaks, even though the country around them was still completely unexplored. The observations were made by parties in the field, but the work of calculating the results was not done until the parties had returned, several months later, to their base in Calcutta or elsewhere.

The Great Trigonometrical Survey was a gigantic task



The Discovery of Everest

which took many decades to complete. For a long time it was thought that Kanchenjunga was the highest mountain. This was because it stands well to the southern front of the range and can be clearly seen in all its colossal majesty from the foothills of the range, and even from the plains.

One day in 1852 the Indian Chief Computer rushed into the office of the Surveyor-General, Sir Andrew Waugh, shouting: "Sir, I have discovered the highest mountain in the world." What he had done, in fact, was to work out from the observations of one of the field parties the height of a mountain known to the surveyors as Peak 15. In those days very few even of the greatest peaks of the range had names, and numbers were given to them for the sake of convenience. Following the usual practice, Peak 15 had been observed from six different places, each of them more than a hundred miles from the mountain itself. Over such distances it is impossible to get absolutely accurate results even with the most precise instruments; that is why it was considered necessary to take as many as six observations. The figures resulting from each varied, in some cases by more than a hundred feet. The average of all six observations worked out at 29,002 feet. This is the height which has been accepted by most geographers ever since and which will be found on most school atlases.

The detailed survey of the Himalayas is still by no means complete, while by far the greater part of the vast ranges beyond the Himalayas to the north is still unmapped. But we now have enough information about this



The Discovery of Everest

huge area to know with reasonable certainty that there is no mountain higher than 29,000 feet.

Sir Andrew Waugh decided to name the newly-measured Peak 15 "Mount Everest" after his predecessor Sir George Everest who was a very distinguished mathematician. Seventy years later, when the first explorers approached the mountain across the plateau of Tibet, they found that the Tibetans called it "Chomolungma". After Sir Andrew's time it became the policy of the Survey of India to call the mountains of the Himalayas by local names or at least to name them in the language of the country where they were situated. But by then Everest had become so famous as the highest mountain in the world that it was decided to make an exception in its case.

In 1852 climbing as a sport had hardly begun. It is true that Mont Blanc had already been climbed, but men were only just beginning to develop the art of mountaineering and to discover the fascination of attempting to climb the more difficult peaks in the Alps, such as the Matterhorn. It was not until most of these had been climbed that mountaineers, seeking fresh fields of endeavor, began to turn their attention to the greater ranges of the world. The highest peaks in the Caucasus and in the Andes were scaled, and by the end of the century a few unsuccessful attempts had been made to climb some of the giants of the Himalayas.

Once men had started climbing in the Himalayas it was not long before their eyes turned toward Everest. But here they came up against political difficulties. For although



The Discovery of Everest

Everest can be seen from India, it actually lies on the borders between Nepal and Tibet. Now the rulers of both those countries have always been most reluctant to allow European travellers to cross their frontiers. This was largely due to their fear that they might lose their independence, though in the case of Tibet there was the added fear that too much contact with the West would upset the Buddhist religion upon which the whole culture of that country was founded. No doubt both countries could have been forced to allow expeditions to go through their territories to Everest, but it was always the firm policy of the British Indian Government to respect the wishes of small states bordering on their territory and they would never press such a demand.

As early as 1893 Captain (later Brigadier-General) Bruce tried to get permission to go to Everest through Tibet, but he failed to do so. Other approaches were made with no more success. In 1907, Bruce and Dr. Longstaff proposed that the fiftieth anniversary of the Alpine Club should be celebrated by an attempt to climb Everest. The proposal had the strong backing of Lord Curzon, then Viceroy of India; but still permission was refused.

It was not until after the first World War that a successful approach was made, and in January, 1921, the Tibetan Government granted permission for a British expedition to travel through their country to Everest. This, incidentally, was largely due to Sir Charles Bell, an officer in the Indian Political Service, who had been to the holy city of Lhasa, the capital of Tibet, and had become a per-



The Discovery of Everest

sonal friend of the Dalai Lama, head of the Lamaist monks.

As soon as the news reached England a committee, known as the Mount Everest Committee, was formed by the Royal Geographical Society and the Alpine Club to organize an expedition to explore the approaches to the mountain and, if possible, to discover a way of climbing it. It was decided that the expedition should start that very spring of 1921, though there was very little time for making the necessary preparations. Money had to be raised, a party chosen, supplies and equipment bought, packed and shipped to India.

In those days very little was known of the special problems that a climber would have to face on a mountain such as Everest. It was realized, of course, that one of the chief difficulties would be lack of oxygen at the great altitude to which the mountain rose. For it was common knowledge that the higher you go above sea-level, the thinner the air becomes and the less oxygen there is to breathe; and without oxygen nothing can live.

Before 1921 the highest point that had ever been reached on a mountain was 24,600 feet. That was achieved by an Italian expedition, on a peak in a range called the Karakoram, a north-westerly continuation of the Himalayas. Several other parties had reached 23,000 feet elsewhere in the Himalayas. Even at that height climbing is an exhausting business; mind and body alike are deprived of their vitality. Nobody had ever attempted to live for long up there; but to climb a mountain like Everest it would probably be necessary to do so, and even to spend a night



The Discovery of Everest

or more a good deal higher. No one knew if this was possible.

Many scientists believed that it would prove impossible to climb to 29,000 feet without artificial breathing apparatus; they also predicted that any one attempting to spend the night at, say, 25,000 feet would almost certainly die. Airmen had already flown to these heights, but they had carried with them supplies of oxygen which could be fed to them by pipes when necessary. Men climbing Everest would be spending far longer at these altitudes than any airmen had ever done, and if they were to take a supply of compressed oxygen with them they would have to carry it themselves. Whether or not it would be possible to furnish the climbers with portable oxygen was yet to be proved. Moreover there were many people who considered that to use artificial breathing apparatus to climb Everest would be "unsporting." However, I will discuss this question in a later chapter.

The organizers of the 1921 expedition were not immediately concerned with this problem, for none of them was so optimistic as to suppose that an attempt could be made to climb the mountain that year; though they realized that it would have to be tackled if such an attempt were to be launched. In the meantime a way of reaching the foot of the mountain had yet to be found, let alone a practicable route up the peak itself.

The expedition was planned and conducted very economically. It cost between twenty-five and thirty thousand dollars. This was less than half the cost of most subsequent



The Discovery of Everest

expeditions to Everest which were run on a much more lavish scale. Most of the money for these expeditions was raised by selling to newspapers the exclusive rights on articles describing their progress.



THE WAY IS FOUND

THE CHIEF OBJECTS of the expedition which assembled at Darjeeling in May, 1921, were to explore the approaches to Mount Everest, to find a way of reaching the foot of the mountain, and to see if there was a route by which it could be climbed. I always think of it as one of the most exciting expeditions of this century. Imagine the thrill of setting out to *find* the highest mountain in the world!

The leader of the expedition was Colonel C. K. Howard-Bury. Besides being a distinguished mountain traveller, he had played an important part in obtaining permission for the expedition to enter Tibet. As the expedition was to travel over a great extent of unexplored country the party was composed of scientists as well as mountaineers. A. F. R. Woolaston, celebrated for his work in the Mountains of New Guinea and Central Africa, went to study



The Way Is Found

the natural history of the region, and Dr. A. M. Heron, the geology. There were two officers of the Survey of India to make maps of the country they explored: Major H. T. Morshead and Captain E. O. Wheeler (later Sir Oliver Wheeler, the Surveyor-General). Both these men were experienced climbers.

The mountaineering party numbered four: Dr. A. M. Kellas, H. Raeburn, G. L. Mallory and G. Bullock. Both Kellas and Raeburn had had previous Himalayan experience, while the former had made a particular study of the effects of high altitude upon human beings. He was also the first man to begin training Sherpas for work on high mountains. Mallory was one of the most distinguished British Alpine climbers of his time and, as we shall see later, was to make a great name for himself on Everest.

The expedition set out in two parties from Darjeeling, on May 18 and 19, each party taking fifty mules and twenty coolies. Although the summit of Everest itself lay only one hundred miles away to their northwest, the route they had to follow took them more than three hundred miles, first northeastward across the main range of the Himalayas on to the great barren plateau of Tibet, at a height of 14,000 feet; then westward for more than one hundred miles across that bleak windswept country; and finally southward from Shekar Dzong for another fifty miles to the lower slopes of Everest itself. It was a difficult and arduous journey into the unknown.

Near a place called Kampa Dzong, the expedition suffered its first set-back. Dr. Kellas had been ill for a number



The Way Is Found

of days and was being carried on a litter. At Kampa Dzong, Howard-Bury, who was traveling slightly in advance of the rest of the expedition, was reached by a runner from further back along the route. Kellas, he learned, was dead. The expedition had lost one of its most experienced and useful members. The loss was doubly unfortunate as Raeburn, also, had fallen ill, which meant that the climbing party was still further weakened.

It was, says Mallory, somewhat ironical that the day after Dr. Kellas' death the members of the expedition saw Everest for the first time. In his description of that wonderful first sight Mallory showed, as he did in many other descriptions of mountains, a little of what it was that attracted him to the apparently unrewarding business of climbing.

"It was a perfect early morning as we plodded up the barren slopes above our camp and rising behind the old rugged fort which is itself a singularly impressive and dramatic spectacle; we had mounted perhaps a thousand feet when we stayed and turned, and saw what we came to see. There was no mistaking the two great peaks in the West: that to the left must be Makalu, grey, severe, and yet distinctly graceful, and the other away to the right—who could doubt its identity? It was a prodigious white fang excrescent from the jaw of the world. We saw Mount Everest not quite sharply defined on account of a slight haze in that direction; this circumstance added a touch of mystery and grandeur; we were satisfied that the highest of mountains would not disappoint us."



The Way Is Found

At Kampa Dzong, the mountain was still more than one hundred miles away, but as the expedition moved on the glimpses of it became more numerous. Intervening minor ranges still hid the lower slopes, but gradually it became possible to build up a picture of what the upper slopes were really like.

At length the expedition arrived at Tingri, a group of three hundred houses on a small hill which rose out of the Tibetan plain. Here Howard-Bury had planned to make his headquarters. The scientists among the party went about their business of collecting geological or botanical specimens, the surveyors began their task. Mallory and Bullock, together with sixteen porters and a *sirdar*, or overseer, to manage them, set off southward for a long valley which according to local reports led to the actual base of Everest itself.

In a few days they had reached the entrance to this valley, named after the Rongbuk Monastery which was situated there. From here the climbers saw, for the first time, the true shape and size of the problem that they had come so far to solve.

The Rongbuk alley runs nearly twenty miles in a straight line, and for about half of its length is filled by the ice of the Rongbuk Glacier. From the monastery to the head of the valley at the foot of the great precipices of Everest, the valley rises only 4,000 feet, which, although it sounds a lot, is not very much when the rise is spread over such a distance. In other words, Mallory and Bullock, when they first reached the entrance to the valley, had only to





Mount Everest from

The Way Is Found

climb a short distance up one of the sides of it to gain an almost horizontal view straight up the valley to its head.

There, in one immense sweep of 10,000 feet, stood the great north face of Everest. "There is no complication for the eye," wrote Mallory of that first stupendous view. "The highest of the world's great mountains, it seems, has to make but a single gesture of magnificence to be lord of all, vast in unchallenged and isolated supremacy."

The view of Everest which these first explorers obtained is one which has become known to thousands of people all over the world. Slanting down very steeply to the right, or northwest, of the summit, lies the northwest ridge, a long crest of rock and ice which Mallory and Bullock immediately decided was too difficult to provide a route to the summit.

To the left, or northeast, of the summit, there runs another crest, much less steep than the first. It was this ridge which from the first attracted Mallory's attention and which was to provide the route up which all the early attempts to reach the summit were made.

To complete the picture of Everest, the mountain may be described as a rough pyramid with three ridges separated by three faces. On the far side from where Mallory and Bullock were standing the third of these ridges runs in a southeasterly direction and connects Everest with Lhotse, or South Peak. There is more to be said about this ridge later in the story.

Mallory, of course, knew nothing of the southeast ridge. It was the northeast ridge which engaged his atten-



The Way Is Found

tion. It was impossible to see many details from a distance of twenty miles, but it did appear that there were no great climbing difficulties on it. What is more, about three-quarters of a mile down from the summit, the ridge threw off what appeared to be a minor spur leading almost due north. This sloped down until it was hidden by intervening mountains and then appeared to rise again into a summit which was later known as Changtse, or North Peak.

Mallory realized at once that the key to the problem lay in the col, or depression, that must exist between the Northeast spur and the North Peak. If that col (it later became known as the North Col) could be reached, a way to the summit would have been found.

He and Bullock pitched camp near the glacier, at a height of 16,500 feet—nearly 1,000 feet higher than the top of Mont Blanc, the highest peak in the Alps—and the following day set off up the glacier toward the great wall which enclosed its head.

The glacier was quite different from any they had seen before. Instead of the relatively smooth surface found on glaciers in the Alps and elsewhere they encountered a forest of fantastic pinnacles, some of them as much as eighty feet high. These stretched for mile upon mile, like a topsyturvey mass of colossal icicles. Standing among them was like being in a strange fairyland of ice. But it was terribly slow work to make their way through the labyrinth of passages between them, and for the most part they had to keep to the very edge of the glacier to make any progress at all.

As they climbed slowly up the glacier they were op-



The Way Is Found

pressed by a curious lassitude which robbed them of much of their strength. It was what has since become known as "glacier lassitude" and is apparently due to the amount of moisture in the air produced by the hot sun on the ice.

At last, on July 1 they reached the head of the Rongbuk glacier. They found themselves standing at the bottom of an immense basin. They were astonished at the vast scale of the mountains around them. They had reached an altitude of 19,000 feet. They could now see the North Col, lying, as they had supposed, between the North Peak and the Northeast Spur of Everest. They saw at once, to their great disappointment, that the col would be very difficult to climb from this side.

It could certainly be climbed by experienced mountaineers, but that is not the only consideration when looking for a route up a great Himalayan peak. In order to attempt to reach the summit of Everest it would be necessary to have a large, well stocked camp at the North Col with supplies enough to last for many days or even weeks, and also tents, equipment and food enough for further camps still higher up the mountain. This would mean that a great deal of baggage would have to be carried by porters to the North Col. In those days the Sherpas were completely untrained for climbing on ice and snow, and Mallory and Bullock judged that the western side of the North Col was no place for untrained men carrying loads.

Before leaving the area to make a search for a way round to the eastern side of the North Col, Mallory and Bullock decided to explore a large tributary which joined



The Way Is Found

the main glacier from the west, and if possible reach the crest of the main range from where they might see something of the unknown southwestern aspect of Everest. They climbed a peak of 22,520 feet, near the junction of the two glaciers which gave them a general idea of the geography of the area and then they penetrated and explored the West Rongbuk Glacier, as they called it. From there on July 19, they succeeded in reaching a col on the main watershed.

When they gained the summit of this col they were met by an amazing sight: "a fantastically beautiful scene" as Mallory describes it. At their feet the ground plunged into an abyss, at the bottom of which, three thousand feet below, they could see another glacier flowing away to the south into the forested valleys of Nepal. On the other side of the great chasm, so close that it appeared almost as though one could throw a stone to it, there was a mighty wall rising to more than 25,000 feet, and decorated by lovely tracery of ice-fluting, arranged in delicate patterns of perfect symmetry as though fashioned by the hand of a master sculptor. This wall (the right-hand end of which was named Nuptse, or West Peak) was separated from the main mass of Everest by a deep, narrow valley which Mallory named the West Cwm.*

From where they stood Mallory and Bullock could not see to the head of the West Cwm, for the valley bent round to the left, out of sight behind the precipitous southern face of Everest. All they could see was the narrow entrance through which poured an immense cascade of ice. Mallory considered that, because of the tremendous steepness of the

* Pronounced "comb." (see *Glossary*)

The Way Is Found

mountain walls, the chances of finding a route up Everest from this direction were very slight indeed. Moreover they were cut off from the entrance to the West Cwm by the great abyss on the brink of which they were standing.

The whole problem of finding a route up Everest now seemed to depend upon whether or not it was possible to climb up the eastern side of the North Col. The immediate task of the explorers was therefore to find a way of reaching that side.

Had they but known it, the way to the eastern side of the Col lay close at hand. A few miles above the foot of the Rongbuk glacier there is a narrow defile running to the east. It is quite inconspicuous and resembles many other rocky passages running up from the main valley. Not unnaturally the explorers hardly noticed it on their way up and down the glacier and certainly attached no significance to it. In actual fact it is the mouth of an important valley which, higher up, opens out and contains a large glacier. It curls round the eastern side of the North Peak and ends in a wide basin at the base of the northeastern foot of Everest. It offers a perfectly easy route to the eastern foot of the North Col, as a glance at the map (page 80) will show.

That Mallory missed the defile in no way reflects on his judgment or on his competence as a mountaineer. In finding one's way about an unexplored mountain range one is constantly making such mistakes which often one rectifies only a long time later. This mistake cost the party weeks of arduous travel.

Leaving the Rongbuk Valley on July 25, they made their



The Way Is Found

way across the passes to the north of the range to a place called Kharta in the upper valley of the River Arun. Here Howard-Bury had set up his new headquarters while Mallory and Bullock were exploring the Rongbuk glacier, for the scientists were now working in this area. All the members of the expedition were once more united, including Raeburn, who had by now recovered from his illness.

During the next six weeks a detailed exploration was made of the country lying immediately to the east of Everest. With the detailed surveys of Morshead and Wheeler the whole geography of the area gradually began to unfold. It was seen quite clearly that the eastern side of Everest was impossible to climb. This confirmed Mallory's belief that the only hope lay in finding a practicable route to the North Col.

Mallory and Bullock made their way up a long valley leading due west from Kharta, and from its head succeeded in reaching a col, 22,000 feet high. This they called Lhakpa La or Windy Gap. Very few of the peaks, glaciers and high cols in the mountain ranges of Central Asia are given names by the natives of the countries in which they are situated. This is because the local people rarely penetrate into these high regions and are not interested in their topographical features. Thus it is necessary for explorers themselves to name them. The method adopted by most explorers in Central Asia has been to invent suitable names and to translate them into the language of the country in which they are traveling. That is the origin of nearly all the names of the high mountain features in the Everest region, such as Lhotse





G. H. BULLOCK



G. H. LEIGH-MALLORY



ANDREW IRVINE

The Way Is Found

(South Peak), Nuptse (West Peak), and the Lhakpa La.

The Lhakpa La turned out to be an important discovery. For from its summit Mallory and Bullock looked down upon a wide glacier basin lying right under the northeast face of Everest. On the opposite side of the basin to the west they looked across to another col which they immediately recognized as the North Col. They saw that from this side it was relatively easy to reach. They saw, too, that this new glacier they had discovered flowed to the northwest and they realized that it must somehow drain into the Rongbuk Valley. Later, with the help of Wheeler's survey, it was found that in fact it drained through the narrow defile mentioned above. The new glacier was named the East Rongbuk Glacier.

Mallory and Bullock returned to Kharta to report their discovery. The party was now faced with two alternatives. Either they could travel all the way back to Rongbuk and make their way up the newly discovered East Rongbuk glacier, or they could make their way up the valley west of Kharta, cross the Lhakpa La and descend on to the upper basin of the glacier. Mallory favored the second alternative, for although it might be the more difficult it would probably save time. It was already late in the year and winter was approaching. He was most anxious to prove that a way to the North Col had been found by actually reaching it, before the expedition returned to England.

It seems, too, that he still had in the back of his mind the possibility of climbing far up the mountain and even of reaching the summit itself. It was only later, when men



The Way Is Found

actually got on to the upper slopes of Everest, that it was realized what a tremendous effort was required to climb at those great altitudes.

Late in September Howard-Bury, Woolaston, Raeburn, Bullock, Wheeler and Mallory reached the head of the Kharta Valley again and camped below the Lhakpa La at an altitude of 20,000 feet. All was ready for the final phase of the expedition. It turned out, however, that Raeburn was not sufficiently recovered from his illness and he had to be left behind. The others set out at four o'clock on the morning of September 22, accompanied by twenty-six porters.

They failed to get beyond the Lhakpa La that day and camped almost on the summit of the col. There they spent a very bad night. The wind howled round their tiny tents and the temperature fell to below zero. None of them slept at all, and by morning all of them were suffering from severe headaches due to the altitude.

Looking across at the great ice-slopes leading to the North Col it appeared that their task was likely to be so difficult that it was decided that only the best climbers, Mallory and Bullock and Wheeler, should go forward to tackle it accompanied only by a few porters. They descended onto the glacier, crossed it and pitched camp on the far side. On the following day, September 24, at 11:30 a.m., they reached the crest of the North Col, the key to the problem they had come so far to solve, and which they had first seen more than two months before.

Mallory's first action was to look upward to the left where the northeast spur rose above them. "If ever we had



The Way Is Found

doubted," he wrote later, "whether the arête" (the great N.E. Ridge of Everest) "was accessible, it was impossible to doubt it any longer. For a long way up those easy rock and snow slopes was neither danger nor difficulty." The way had been found, and the chief object of the expedition achieved.

The climbers were very tired indeed, but even if they had been in a condition to go farther up the mountain they could not have done so. The wind, that terrible wind which was to be the despair of the expeditions that followed, was blowing with great fury across the ridge. Mallory and his companions had to crouch under the partial protection of a little ice-cliff just below the summit of the col. Let Mallory describe the experience so well remembered by all Everest climbers: "And higher was a more fearful sight," he says. "The powdery fresh snow on the great face of Everest was being swept along an unbroken spindrift and the very ridge where our route lay was marked out to receive its unmitigated fury. We could see the blown snow deflected upward for a moment where the wind met the ridge, only to rush violently down in a frightful blizzard on the leeward side."

There was only one thing to do. The party retreated to their camp on the East Rongbuk glacier and, the following day, made their way back, over the Lhakpa La to the Kharta Valley. The reconnaissance of Everest was over.

The expedition had been brilliantly successful. A way to the summit of Everest had been found; thirteen thousand square miles of unexplored country had been mapped; and a tremendous amount of valuable data regarding its geology and natural history had been collected.



THE FIRST ATTEMPT

THE RECONNAISSANCE EXPEDITION returned to England in the late autumn of 1921. In the meantime permission had been obtained from the Tibetan Government to send out another expedition the following year for the first real attempt to climb Everest.

It was thought that the best time of year for the attempt to be made was between the middle of May and the middle of June. Before that period Tibet is swept by violent north-westerly gales which make life very unpleasant even on the plateau, and would render climbing, or even existence, on the exposed north face of Everest impossible. In June the warm, moist monsoon winds start blowing up from the south, and though life at high altitudes might then be more comfortable, masses of fresh snow are deposited on the mountain which would make climbing very difficult, if not impossible.

To take advantage of the brief period between the end of the spring gales and the arrival of the monsoon snow, the



The First Attempt

expedition would have to reach their Base Camp in the Rongbuk Valley well before the end of April. This would mean leaving Darjeeling before the end of March; and this in turn meant that all the stores and equipment must be ready for shipment from England by the end of January. There was no time to lose.

The most important matter to be decided was the composition of the party. Unlike the first expedition, whose main job had been to explore, this was mainly a climbing expedition and must therefore be composed mainly of mountaineers. Brigadier-General the Hon. C. G. Bruce was appointed leader. As an officer in a Gurkha regiment he had spent most of his service life in the Himalayas and had gained a remarkable reputation not only among his own countrymen but also among the mountain tribes. Though too old to take part in the high climbing, he was in every other way the ideal choice as leader.

Fortunately Mallory and Morshead were again able to join the party, but Bullock had to return to his work in the Consular Service. Notable among the others who were invited to join was T. G. Longstaff, who had done a tremendous amount of pioneer work in the Himalayas and was also a doctor, E. L. Strutt, E. F. Norton, G. I. Finch, T. H. Somervell, all expert Alpine mountaineers, C. G. Crawford, who had been to Kangchenjunga, and Geoffrey Bruce, a cousin of the General, and himself an officer in a Gurkha regiment.

The party was equipped with several sets of portable oxygen apparatus for use above the North Col. But there



Rongbuk Monastery

The First Attempt

was disagreement among the members as to whether these should be used. One group held that their task was to climb Everest by their own unaided efforts, and that to use an artificial means of breathing in the rarefied atmosphere at high altitudes would be to overcome by unfair means the mountain's principal weapon of defence. The opposing school argued that, as mountaineers, their interest lay in overcoming mountaineering difficulties; that, in fact, the climbing of Everest was not just a stunt to see whether their lungs could or could not sustain life at an atmospheric pressure of ten inches of mercury, but an interesting piece of geographical and mountaineering exploration. They pointed out, moreover, that the term "unaided efforts" was meaningless. Were not ice-axes and ropes aids? Would moral principle forbid the use of thermos bottles? Were science to produce oxygen in tablet form instead of in heavy, cumbersome cylinders, would it then be acceptable to the purists?

But, apart from this "moral" aspect of the case, it was by no means certain that the use of oxygen as it was then provided was in fact an aid to climbing Everest. In the first place the apparatus weighed about thirty-five pounds, an awkward burden to carry while climbing on difficult ground. Then, a mask, however simple, is apt to impede the climber's sense of balance and to disrupt that close coordinated contact with the mountain which is his chief means of survival. Again, what would happen to a man accustomed to breathing oxygen from an artificial supply should that supply suddenly fail owing to a breakage or



The First Attempt

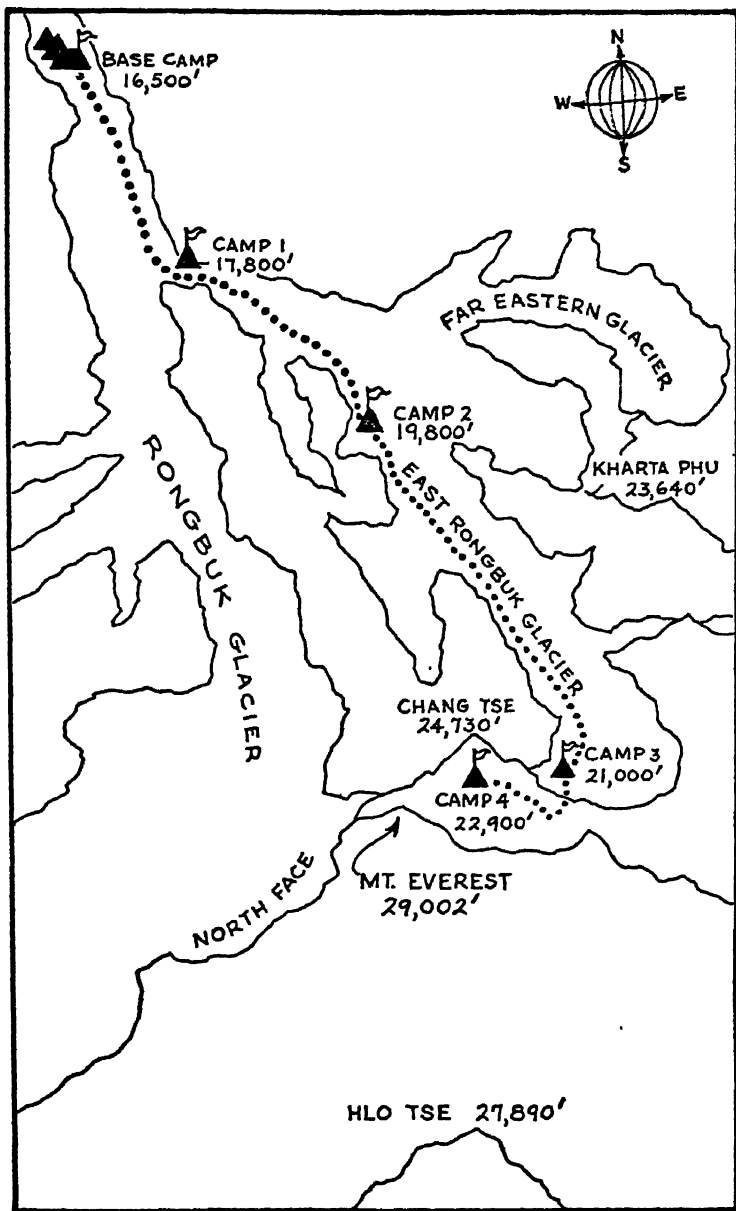
other hitch—a contingency not wholly improbable in the boisterous conditions to be expected on a high mountain? To outweigh these and many other practical objections, the benefit derived would have to be very great indeed.

The party left Darjeeling on March 26, and by the end of the following month had reached the Rongbuk Monastery, having followed almost the same route across the plain of Tibet as the expedition of the previous year. Here, some sixteen miles from Everest itself, they were entertained by the Abbot, who naturally asked them why they wished to climb the mountain. Bruce, anxious to explain that the expedition was not looking for valuable minerals, told him, very simply, that they regarded the whole expedition, and especially their attempt to reach the summit of Everest, as a pilgrimage.

The expedition established its Base Camp just below the snout of the Rongbuk Glacier before the end of April, and immediately began the task of setting up a series of camps on the route to the North Col.

By 1922, mountaineers had begun to realize how formidable the task of climbing Everest really was. They no longer expected to be able to take it by storm, in one determined rush up the mountain. Instead it was appreciated that a number of camps would have to be established, not only below but also above the vital North Col, which is about 23,000 feet high; and that this, and the supplying of these camps with food and equipment, would require a great deal of organization and work before an attempt could be made to reach the top.





The First Attempt

Camp I was set up at 17,700 feet, at the entrance of the narrow defile leading to the East Rongbuk Glacier. Camp II was placed at 19,800 feet, about four miles up this glacier, while Camp III, within full view of the North Col itself, was pitched at 21,000 feet.

Soon after Camp III had been established, Mallory and Somervell set out from it to find a way up the steep slopes leading to the North Col which Mallory and his companions had scaled the previous year.

On any mountain standing above the limits of perpetual snow, ice and snow conditions change considerably from one year to another, and Mallory found that the first long slope up which his party had climbed with comparative ease in 1921 was now composed of steep, hard ice. In other ways, as well, the approaches to the North Col presented fresh problems, and it was only an unexpected break in the ice-cliffs which enabled the two men, accompanied by one porter, to reach the top of the Col without serious difficulty. Even so, two "fixed ropes" were left to help the following parties, and Mallory realized that the movement of heavily-laden porters up to the North Col, where Camp IV was to be pitched, would be far more of a problem than he had expected.

On May 16 Mallory and Somervell were joined at Camp III by Strutt, Norton and Morshead. Things had not been going at all well. Many members of the party were sick, including Finch, who was the one man who had complete faith in the use of oxygen and who was responsible for the equipment. It had been found a great deal more difficult



The First Attempt

than had been expected to transport stores and equipment up the glacier, largely because of the difficulty of persuading enough of the untrained Sherpas and Tibetan porters available to carry loads into this region, which to them was so strange and forbidding. The advance up the mountain had been delayed and time was running short. Moreover, Mallory was not at all happy about the weather. Ominous banks of cloud were building up in the south which suggested that the monsoon might arrive earlier than had been expected.

These facts forced the climbers to revise their plans. It had originally been intended that Mallory and Somervell should make the first attempt without oxygen; after putting two camps above the North Col, the first at 25,000 feet and the second at 27,000 feet. The second attempt was to be made by Finch and Norton using oxygen. Now it appeared that both the supplies and the time available would restrict the expedition to one attempt only, and that only one camp could be placed above the North Col.

It was decided, therefore, that a joint effort should be made by Mallory, Somervell, Norton and Morshead. On May 17 these four, accompanied by Strutt and ten Sherpas, established Camp IV on the North Col. They rested there on the 18th and on the 19th they went back to Camp III and returned with further supplies.

All was now ready for the first attempt on the mountain, for the first advance into that unknown region of extreme altitude. At seven-thirty in the morning of May 20 the four climbers were ready, with nine Sherpas, carrying between



The First Attempt

them only four loads, each load weighing twenty pounds. They hoped that day to carry a camp at least to 26,000 feet—3,000 ft. above the North Col.

As Mallory had seen the previous year, the climbing immediately above the Col was easy. The morning was calm and fine, and the prospects looked good. But after a few hours conditions changed; the wind started to blow, the sun was obscured by drifting clouds and it became intensely cold. The climbers were experiencing the deadening effect of lack of oxygen; mind and body were reduced to a torpid state; every movement required an effort of will, and it was difficult even to think clearly.

So slow was their progress that by two o'clock they had reached an altitude of barely 25,000 feet. It was obvious that they could not get their camp any higher if the porters, who were suffering from the effects of altitude no less than the climbers, were to have time to return to the North Col before nightfall. It was very difficult indeed to find a place on which to place the camp, for the rocks sloped steeply downward, and ledges, both wide enough and level enough to accommodate a tent, were rare and hard to find. Eventually two tiny platforms were found, and at three o'clock the Sherpas started down the mountain.

The four climbers pitched two tents and settled down in their sleeping bags for the night. At 25,000 feet they were far higher than anyone had ever spent a night before. Indeed, many scientists had predicted that any man attempting to spend a night at this enormous altitude would almost certainly die in his sleep.



The First Attempt

The climbers were far from well. Their exertions and the cold and altitude had taken a heavy toll of their strength. They all suffered more or less from frostbite, while Morshead, who had suffered more severely from exposure, was in a very weak condition. The long night in that little camp was a grim experience for them all.

At dawn it was snowing gently, but later it cleared and they set off up the mountain at eight o'clock. They had gone only a few yards when Morshead found that he was too ill to continue, and returned to the camp. The other three moved slowly upward over ground which would have been easy had it not been for the new snow which had fallen in the night. As it was, they had to take great care to avoid a slip.

It was grueling work. Every few minutes they had to stop and gasp for breath; every half hour they were forced to halt for a rest. Slowly but surely as the day wore on, the hard facts of the situation became evident. They were climbing at a rate of only four hundred feet an hour. Even if they could keep this up, which was most unlikely, even if nothing went wrong, even if the climbing remained as easy as it was at present, they could not possibly reach the summit and get down alive.

At two-fifteen they halted at the top of a little cliff, rather steeper than the rest. They had already decided that two-thirty was the latest hour at which they could turn back and still allow themselves a reasonable chance of getting back to the North Col before darkness overtook them. This, then, was the point from which they must return. They had



The First Attempt

eventually reached an altitude of about 27,000 feet.

The heights of mountains or of individual points on mountains can only be determined with any degree of accuracy by theodolite observations from a distance. In the Himalayas even these can only be relied upon to within fifty feet or one hundred feet. Aneroid barometers, which record the atmospheric pressure and thus the approximate altitude, are quite unreliable at great heights. So it was not until after they had returned to the Base Camp that Mallory and his companions could discover how high they had been.

They were only about 2,000 feet below the summit of Everest. They believed that if only they had had the equipment with them to camp there, they could have climbed to the summit the following day. From where they stood they were quite unable to judge the difficulty of the ground between. We know now that with all the snow that was then covering the rocks this would have been quite impossible to climb.

As it was, Mallory wrote later, "I have little doubt that we could have struggled up perhaps in two hours more to the Northeast Shoulder, now little more than four hundred feet above us. Whether we should then have been fit to conduct our descent is another matter." It is very lucky for them that they did not try, for as it was they came near to disaster on the descent to the North Col.

They reached Camp V at 4 p.m. Here they picked up Morshead, who was still far from well, and with him they set off for the 2,000 feet descent to Camp IV. There was still more than three hours of daylight left. The ground

The First Attempt

was not difficult. They were going down hill, and they were getting near the end of the most exhausting day that any of them had ever experienced. The conditions were, in fact, just those which tend to make climbers relax and which often result in an accident. So it was on this occasion.

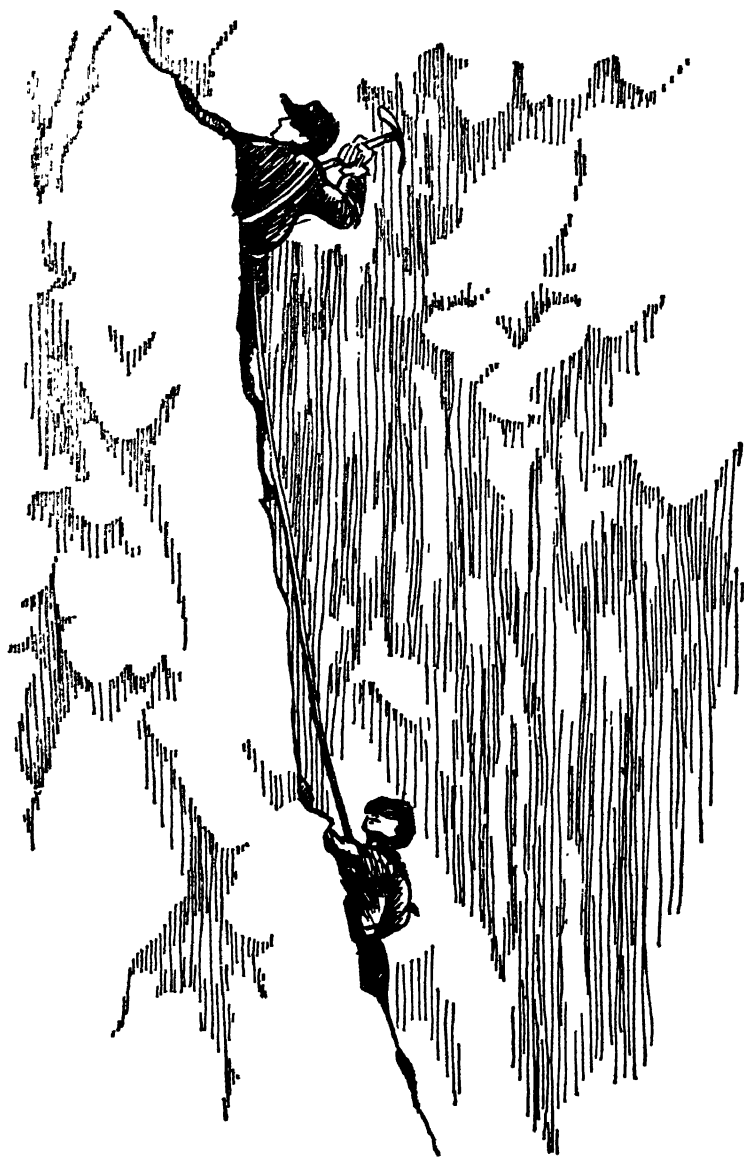
The party, with Mallory leading, was working its way down broken rocks at the edge of a long slope of hard snow. The rocks were not difficult, but a slip, if it was not checked, would send the climbers tumbling over the precipices to the Rongbuk Glacier, thousands of feet below. They were all roped together.

Suddenly the third man slipped and dragged the last man down. They shot down the slope together, and their combined weight dragged the second man down with them. In the meantime Mallory, without so much as looking round to see what was amiss, stuck the pick of his ice-ax into the snow and hitched the rope round it.

"In the still moment of suspense, before the matter could be put to the test, nothing further could be done to prevent disaster one way or the other," Mallory wrote later. "The rope suddenly tightened and tugged at the ax-head. It gave a little as it gripped the metal like a hawser on a bollard. The pick did not budge. Then the rope came taut between the moving figures and the rope showed what it was worth." So, for that matter, did Mallory, whose long mountain training had caused him to react automatically to the danger, and whose prompt action had undoubtedly saved the whole party from catastrophe.

This was not the last of their trials. After the accident





We were able to reach the top of the ice wall.

The First Attempt

they had to cut steps down the long snow slope, always slow and exhausting work. Morshead was now so ill that he had to be supported. Darkness as gathering. They still had a long way to go, and progress was very, very slow with only the bare outline of the rocks to guide them. At last they reached the North Col, but they still had to find the camp, no easy matter among the crevasses and the jumble of ice blocks.

They did not reach the tents until eleven-thirty, utterly exhausted and parched with thirst. Thirst is a terrible enemy at great altitudes. They longed above all for a hot drink, indeed for a drink of any kind. To their bitter disappointment they found that, by some mistake, all the stoves and cooking pots had been taken down to Camp III and there was no way of melting the snow for water. The only refreshment they had was strawberry jam mixed with frozen canned milk and snow. The following day they staggered down the slopes of the North Col to Camp III.

On their way they met Finch, Geoffrey Bruce, Wakefield and Tejbir, a Gurkha non-commissioned officer, and several Sherpas who were going up to the North Col. Finch had now recovered and it had been decided that he and Bruce and Tejbir should make a second attempt to reach the summit, this time with oxygen. On May 25 they went up the N.E. Spur with twelve Sherpas carrying oxygen cylinders and other equipment and reestablished Camp V, this time at 25,500 feet. The Sherpas returned to the North Col.

The weather had been getting worse, and before the



The First Attempt

climbers had settled into their camp it was obvious that a major storm was breaking. It raged throughout the night, tearing at the tent and breaking loose a number of guy ropes which had to be re-tied in hurried sorties outside during brief lulls in the storm.

At dawn there was a temporary respite, but soon afterwards the wind rose to even greater ferocity. Snow driven by the gale seeped through the canvas of the tent. So great was the wind that it was impossible to light the stoves. There was nothing to do but to lie down and listen to the thunderous noise of flapping canvas, hoping that the tent would withstand the tremendous battering to which it was being subjected. Once a flying stone cut open a wall of the tent.

It was noon before the wind dropped sufficiently to allow the party to descend. They considered whether or not they should do so, for they had brought with them only enough food for one night at Camp V. However, they decided to remain where they were and eke out their slender rations in case the weather improved sufficiently to allow them to make their attempt after all.

Then at about six o'clock, they heard voices outside. A small band of Sherpas, with characteristic devotion, had, at great risk to themselves, set out from the North Col as soon as the wind had dropped, bringing with them thermos bottles of hot soup and tea. The climbers gratefully took the hot drinks and sent back the Sherpas.

That night, the second at more than 25,000 feet, all the three men were exhausted by lack of food and sleep, and

The First Attempt

by the effects of altitude. Finch prevented their condition from getting even worse by bringing the oxygen apparatus into the tent, and giving "doses" all round. The effect was good and all the men spent a better night than they had expected.

Soon after six the following morning they set off, Bruce and Finch each carrying forty pounds of oxygen apparatus and spare cylinders, and Tejbir carrying fifty pounds. After a few hundred feet Tejbir could go no further. His load was divided between Bruce and Finch—each of whom was then carrying about sixty-five pounds—and he was sent back to the tent. Finch and Bruce, using their oxygen, continued to move steadily upward.

During the morning the wind rose, and they were forced to leave the exposed ridge and to move upward across the sloping slabs which here form the face of the mountain. Though not difficult, the rocks demanded care, for owing to the lie of the strata they sloped outward, like the tiles of a roof, and a slip on them might be difficult to stop. To save time they did not rope together. But as they moved up toward the summit it became steadily clearer that there was little hope of their reaching it. The problem of the climber in such a position is similar to that of the pilot of a plane who must always keep in reserve enough fuel to get him back home.

At midday, only some 1,700 feet below the summit, Finch decided that the critical point had been reached. "I knew," he wrote later, "that if we were to persist in climbing on, even if only for another five hundred feet, we should



The First Attempt

not both get back alive." The position was a tantalizing one, for the summit of Everest was only half a mile away, and the climbers could even see the individual stones on a little patch of glacial debris lying just below the summit. All the same, they had to turn back.

They reached their high camp at two-thirty, continued on downward to Camp IV on the top of the North Col, gulped down hot tea and cans of spaghetti, and after three-quarters of an hour, were rested enough to leave for Camp III, which they reached in only forty minutes. Since mid-day they had descended more than 6,000 feet.

Shortly after the failure of this second attempt, Finch and Bruce joined Mallory, Somervell and most of the other members of the expedition at Base Camp, and the possibility of making yet a third attempt on the summit was discussed.

The main problem was that of finding enough fit men to make it. Norton, Morshead and Bruce were all suffering from frost-bite, while all the members of the party had to some extent been affected by their labors and hardships at the high camps on the mountain. However, Mallory, Somervell and Finch appeared to be in reasonably good condition, and together with Wakefield and Crawford to support them, they set off up the East Rongbuk Glacier for the upper camps.

Soon, however, it was found that Finch was far more exhausted than had been supposed, and he had to drop out. Wakefield was left as supply officer at Camp III at the foot of the North Col slopes, and it was Somervell,



The First Attempt

Mallory and Crawford, accompanied by fourteen porters, who set out to re-establish Camp IV.

The three climbers and one Sherpa formed the first rope and the remaining thirteen Sherpas were roped in parties of four, four and five. Much snow had fallen since the end of the second attempt, but there were only two places on the North Col slopes where Mallory could see any danger of an avalanche. One was low down; if the slopes remained firm there, he believed, they would certainly do so higher up.

All went well on the lower slope, and at one-thirty the four ropes were only about six hundred feet below the crest of the Col, on relatively gentle slopes. "The stillness was suddenly disturbed," Mallory wrote later. "We were startled by an ominous sound, sharp, arresting, and violent, and yet somehow soft like an explosion of untamped gunpowder."

Almost immediately, the slope on which the men were standing began to move. Steadily, and with a power that no one could resist, it bore them down, then slowly began to cover them with waves of snow which broke over their heads and submerged them in spite of all their efforts. The top rope, on which there were three climbers and one Sherpa, escaped the worst of the avalanche. Its members struggled free without too much difficulty and saw below them the next rope of four Sherpas, who had apparently escaped unharmed. There were no signs of the remaining nine men.

The survivors hurried down, still hoping that the men



The First Attempt

on the other two ropes might be only just below the surface. As they got lower, their hopes began to sink, for it was obvious that the track of the avalanche had taken the men on the lower ropes over an ice-cliff, between forty and fifty feet high, and below which there showed the line of a crevasse now filled with new avalanche snow.

Everyone began to dig as fast as he could. The Sherpas who had survived quickly recovered from their shock, and gave all the help they could. One man was dug out alive. The next was dead, and so was the next. Then a fourth was found who had survived both the fall and about forty minutes' burial, but who had suffered no serious injury. All the rest were dead—a total loss of seven men, who, as Mallory said, “died in an act of voluntary service freely rendered and faithfully performed.”

In later years we came to realize what a deadly place the eastern side of the North Col was, once the monsoon snows had begun to fall. Twice we narrowly escaped similar disasters.



THE TRAGEDY OF 1924

THE EXPEDITION THAT SET OUT from England in 1924 was confident of success. For one thing, a number of lessons had been learned from the failure of the 1922 attempts, the most important of which was the Everest was too big a mountain to "rush." There was no possibility of making a "dash for the top" from the camp on the North Col as some of the early climbers had hoped. Instead, it was realized, a number of camps would have to be set up high on the mountain, and Mallory estimated that no less than three would be needed *above* the North Col, one at 25,500 feet, one about a thousand feet higher, and a third at about 27,200 feet. A complicated system of supplying these camps with food and equipment would have to be worked out, and during these operations the men who were expected to reach the summit would have to be carefully "nursed," so that they would be in the best



The Tragedy of 1924

possible physical condition when the time came for them to make the final attempt on the summit from the topmost camp.

More was now known about the extremely severe conditions likely to be met on the higher slopes of the mountain, and new types of windproof clothing, and of boots, were designed specially for the expedition. Compared with the equipment used by the expedition of 1953, which finally reached the top of Everest, much of this earlier equipment now seems primitive; but it was an improvement over that which the first parties on the mountain had used.

In 1924 there was still a difference of opinion on the use of oxygen—as is still to some extent the case. Finch and many other scientists believed that oxygen cylinders were essential if men were to reach the top. Mallory, Norton and Somervell did not agree, and furthermore they felt quite strongly that oxygen should not be used to climb the mountain if it could possibly be avoided. Finally, however, it was decided that, as in 1922, oxygen should be taken and that its use on the mountain should be governed by events.

General Bruce was again given the leadership of the expedition, and Norton went as second-in-command. Mallory, Somervell and Geoffrey Bruce were all able to join the expedition, while among the newcomers the most notable were N. E. Odell, a geologist as well as a mountaineer, J. de V. Hazard, Bentley Beetham, and Andrew Irvine. Irvine was only twenty-two, and he had comparatively little climbing experience. He had, however, climbed in England,

The Tragedy of 1924

skied in the Alps, and taken part in an expedition to Spitzbergen where his stamina and resource had been conspicuous.

Like its predecessor, the expedition which set off from Darjeeling on May 25 was a very large one. Hundreds of pack animals were hired to carry all the supplies and equipment over the passes and across the Tibetan plateau to the Base Camp. Beyond there, no fewer than one hundred and fifty Tibetans and Sherpas were employed to carry the baggage up the glacier to the lower camps.

It is high time that the reader was told something about the Sherpas, who have made such a great name for themselves on Everest and elsewhere in the Himalayas. They are people who come from a small district called Khumbu in northeast Nepal, right under the southwest slopes of Everest. In every respect, except that their home is in Nepal, they are Tibetans. They speak Tibetan, though they have a dialect of their own; their clothes, their customs, their religion and their ancestry are all Tibetan. Indeed, many of the so-called "Sherpas" who have been with the Everest and other Himalayan expeditions, actually come from Tibet, but they are so similar to their brothers across the border that it is impossible to tell them apart, and they have all been lumped together under the single name Sherpa. The famous Tenzing, for example, is a proper Tibetan, for his parents come from Kharta, which has been mentioned in an earlier chapter.

Khumbu is a very small district and has long been overpopulated; so that long ago the Sherpas made a practice



The Tragedy of 1924

of traveling far afield in search of work. Many of them migrated to Darjeeling, where they worked on the tea gardens or as porters carrying merchandise. That is how they came to be employed on the early expeditions to the mountains around Kanchenjunga, and later on the Everest expeditions. In those early days they knew nothing about climbing on ice and snow, and were often very superstitious about high mountains and reluctant to climb on them. But they are brave and hardy people, unfailingly cheerful, and have a remarkable capacity for loyalty. Gradually as they were trained to climb on ice and snow they overcame their superstitious fears and they became wonderful companions to have on any expedition—people in whom one could place implicit trust. I have known the Sherpas intimately for some twenty-three years, they have been my constant companions on a dozen Himalayan expeditions and on many journeys in Central Asia, and I am very fond of them indeed. Nevertheless, I believe that there are many other tribes in the highlands of Asia who, if they were given the same training and the same chances, would turn out to be equally good.

Early in the journey from Darjeeling to Rongbuk, General Bruce became ill and had to retire. His place was taken by Norton who had played such a distinguished part in the previous expedition. In 1924 Rongbuk was reached on April 28, two days earlier than in 1922, and on the following day Base Camp was re-established at the old site, four miles beyond the monastery.

The 1924 expedition was very well organized and much

The Tragedy of 1924

better equipped than its predecessor in 1922. But the timing of the second series of attempts turned out to be most unfortunate. For this no one was to blame; it was due to the fact that in 1924 the weather was totally different from what it had been in 1922.

From our subsequent experience of the weather on Everest, it seems that the seasons in 1922 were exceptionally early. It will be remembered that in that year the first attempt was made on May 21, and even so it had been considerably delayed, not by the weather but by the difficulty of transporting supplies and equipment up the glacier in time. In fact, since 1922, no one has ever succeeded in launching an attempt anything like so early; all the subsequent attempts on the mountain were made at least a week, and sometimes a fortnight later.

Basing his plan of campaign upon the experiences of 1922, Norton naturally planned to launch the first attempt on about May 17. As things turned out this was far too early; the seasons in 1924 were much later than they had been on the previous occasion, and by attempting to press forward to the North Col so soon the expedition ran into serious trouble. No one could possibly have foreseen this, but if from the start the whole time-table had been put back by ten days or even two weeks, I believe that the summit might well have been reached.

The task of transporting stores and equipment up the glacier and of establishing the lower camps was begun on April 30. With better organization and far more carriers, this work at first proceeded much more smoothly



The Tragedy of 1924

than before. But from the start the weather was bad, and on May 4, soon after Camp II had been established, it became very much worse. For more than a week the glacier was swept by a series of terrible blizzards. The camps and the men were battered by ferocious winds, often with the temperature down to 50 degrees below zero. In spite of this the work was pressed forward and attempts were made to establish Camp III.

The hardships were appalling; most of the porters became completely demoralized, and many lost heart to such an extent that they would not even trouble to look after themselves. After a while everything became disorganized. All the energy of the climbers, who were still not acclimatized to altitudes of 20,00 feet, and many of whom were sick, was required to stem the tide of chaos which threatened the expedition with disaster. At one stage it became difficult even to withdraw the men who had reached Camp III, some of whom were seriously frostbitten. Supplies and equipment intended only for use above the North Col had to be opened and used. Any attempt to reach the North Col was, of course, out of the question.

On May 12 the whole expedition was withdrawn to the Base Camp for reorganization and a badly needed rest. Even there, at an altitude of about 17,000 feet, it was impossible to recover fully from the exhaustion which had resulted from the battle with the blizzards. But the most pressing task was to restore the morale of the porters; and the expedition was now so far behind its time-table that only a few days could be spared.

The Tragedy of 1924

The weather cleared and the wind dropped and on May 16 a fresh start was made. On May 19 Camp III was established, and on the following day, Norton, Mallory and Odell set out from there to tackle the North Col. This was not at all what had been intended; all these three were expected to take part in the attempts to reach the summit, and it had been hoped that they would be given a chance to conserve their strength by being spared the most exacting tasks in the earlier stages of the climb. But at the time they were the only members of the party fit to do the job, and time was very pressing.

The ice formations on the North Col slopes had changed considerably since 1922, and the route up them was far more difficult than it had been before. But after an extremely strenuous day, far too exacting for anyone at an altitude of 22,000 feet, they succeeded in making a way up the slopes, and returned to Camp III utterly exhausted. Mallory was far from well; he had been suffering for some time from a sore throat and a very bad cough.

On May 21 Hazard set off up the North Col slopes with twelve Sherpas to establish Camp IV. Somervell and Irvine went with him to help the porters over the most difficult parts of the route, but with the intention of returning to Camp III that evening. The plan was for Odell and Geoffrey Bruce to join Hazard and the Sherpas at Camp IV on the following day and go on to establish Camp V on the 23rd.

But again the weather intervened. Hazard and his party established Camp IV, but only with a good deal of diffi-



The Tragedy of 1924

culty. Somervell and Irvine returned to Camp III according to plan. That night and throughout the next day the snow fell heavily, and by evening there was considerable anxiety at Camp III as to what was happening to Hazard and the twelve Sherpas. On the 23rd the weather improved, and Bruce and Odell set out in an attempt to reach the North Col—only to be turned back by the dangerous condition of the snow. They arrived back at Camp III to learn that earlier in the day Hazard and the porters had been seen coming down the upper slopes; but that later, mists and curtains of falling snow had hidden them from view.

Late that afternoon Hazard arrived at Camp III, but with only eight of the porters. He had led the way across a dangerous slope near Camp IV and had been followed by only eight of the twelve men. The other four had refused to come and had gone back to their camp. In those conditions it would have been foolish for Hazard to linger on those steep, treacherous slopes with so many untrained men, and he rightly decided to bring down the eight men who had followed him.

The snow was still falling and it was obvious that there was no time to be lost in rescuing the four men marooned on the Col. Norton, Mallory and Somervell set out to do so early the following morning. Luckily the weather had improved slightly, but the climbers soon found themselves wading through soft snow, nearly thigh deep. It was extremely arduous and difficult work, particularly for men already exhausted by the great hardships and toil of the



The Tragedy of 1924

past few weeks. But this was not all. The memory of the disastrous avalanche of 1922 must have been very much in their minds; now they were going over the same treacherous ground in what might well be even more dangerous conditions. They were all well aware of the great risks they were running.

Slowly, painfully, they climbed upward, exercising extreme care. Eventually in the middle of the afternoon they reached the dangerous traverse just below Camp IV. The four Sherpas were waiting for them.

Somervell, held on the rope by Norton and Mallory, moved out across the traverse toward the nearest of the porters. At the full extent of his two hundred feet of rope, he found that he was still five or ten yards from the shelf on which the porters were waiting. There was only one thing for it. Each porter would have to climb unaided down the few yards to where Somervell was standing; he would then be able to move back along the traverse to Norton and Mallory, helped both by these steps which Somervell had cut and by the "handrail" formed by Somervell's rope. The first two men came down to Somervell safely and the second two started together from the shelf. Then a large patch of snow broke away from beneath them and a second later the last two porters were sliding down the snow towards the edge of a great ice-cliff two hundred feet below. Tragedy seemed inevitable. Then, suddenly, their slip was arrested. But they dared not move lest they should start sliding again.

Somervell, still as cool as ever, untied the rope from



The Tragedy of 1924

around his waist and drove his ice-ax into the snow as far as it would go. Then, taking the rope round the head of the ax, he held it in one hand, making use of the few extra feet from his waist-loop, and stretched out toward the unfortunate Sherpas. He could just reach them, and, taking each man by the scruff of the neck, hauled them back to the anchor of the ax. Then, after the two porters had struggled across the 200 feet to Mallory and Norton, using the rope as a handrail, Somervell returned along the steps which had been largely destroyed by the porters. "It was," Norton wrote later, "a fine object-lesson in mountain craft to see him, balanced and erect, crossing the ruined track without a slip or mistake." Finally the party of seven arrived back at Camp III after yet another terribly exhausting day.

Once again the party retreated down the East Rongbuk Glacier, for it was obvious that it would be some time before conditions on the mountain would improve sufficiently to allow further operations. Once again plans had to be completely revised. After such a series of misfortunes, with most of the party exhausted by their desperate struggles, exhausted beyond hope of full recovery, it is remarkable that Norton and his companions still believed in the possibility of climbing Everest that year. The chances of success must by now have seemed very slight.

Only a handful of porters were still able and willing to undertake further work on the mountain. It was becoming very late in the season and the monsoon might arrive at any time in the next two weeks. Speed was es-



The great peak of Mt. Everest.

FPG





*The Pit of Death ("Chrongshav"),
20,000 feet up Mt. Everest.*
FPG

*The cairn built in memory of thirteen men who
died in their attempts to scale Mt. Everest.
Elevation: 16,000 feet.*
FPG

*Fifty miles of Himalayan peaks.
This is the highest altitude picture ever made.*
FPG







Members of a British expedition toiling up a glacier.

FPG

An expedition's camp on the lower slopes of Everest.

FPG





Sherpa porters in the Himalayas.

FPG



*The conquerors of Everest: Sardar Tenzing
Norkey (right) and Edmund Hillary, in the
outfits they wore when they reached the top
of the world on May 29, 1953.*
Wide World

The Tragedy of 1924

sential, and it was obvious that any plan of attack would have to be carried out with the minimum of equipment. The expedition, in fact, had been forced by circumstances to fall back upon the old "rush tactics" which had been proved by the previous expedition to offer so little hope of success.

Toward the end of May the weather was beautifully fine and the party returned to Camp III. On May 31, Mallory and Geoffrey Bruce, who had been chosen for the first attempt, set out for the North Col with nine Sherpas. The weather was still perfect and hopes began to revive. They spent one night at the North Col and on the following day pressed on up the Northeast Spur. Here they were met once again by a terrible wind, so powerful that they could scarcely stand against it. They struggled on upward and set up Camp V at 25,000 feet. Five of the porters were sent back and four remained to carry Camp VI further up the mountain. But on the morning of June 2 only one of these men was fit to go on. There was nothing to do but return to the North Col. This was a bitter, bitter, blow, particularly to Mallory, who deserved more than anyone else to reach the summit, and who must now have realized that his chances of doing so had almost vanished.

Meanwhile Norton and Somervell were on their way up to Camp V with four Sherpas for the second attempt. The critical moment of the expedition had now arrived. Could the Sherpas be induced, after the great hardships of a night spent at 25,000 feet, to carry a camp still further up the ridge? The weather was fine during the night, but



The Tragedy of 1924

it was terribly cold, and the lack of oxygen made the men feel weak and sick. The following morning Norton had difficulty in persuading them to leave the comparative warmth of their tent. But eventually three of them, Lhakpa Chedi, Sembuchi, and Nerbu Yiche, responded to his appeal, and started on up the ridge with Norton and Somervell, carrying a light tent, two sleeping bags, a small cooking stove and enough food and fuel for a couple of days.

The weather was still clear and there was little wind. The party climbed slowly, very slowly upward. At half-past one in the afternoon, they reached a little hollow near the top of the Northeast Spur at an altitude of 26,800 feet. It was obvious by then that the Sherpas could not go much farther, and as the hollow was a reasonably good place for a tent, the climbers decided to pitch Camp VI there. It was not quite as high as they had hoped to get that day, but at least, they thought, it gave them a chance of reaching the summit. The Sherpas returned down the mountain, leaving Norton and Somervell alone on this tiny ledge, eleven thousand feet higher than the summit of Mont Blanc.

The climax of the expedition had now been reached. After a series of cruel misfortunes, after battling against tremendous odds, after surviving fearful hardships, they had at last got to within striking distance of their goal. Would the weather now be kind and give them a chance? Had they the strength left to reach out and seize the prize?

They spent a far more comfortable night than they had



The Tragedy of 1924

expected. At dawn they started to prepare for their last grueling effort. The weather was beautifully fine; the sun rose into a clear sky; not a breath of wind stirred the canvas of the tent. But alas! Norton and Somervell were very exhausted men. Somervell, besides, was sick; he had been suffering for some time from trouble with his throat and chest and he had never been given a chance to recover; indeed, with the cold and the lack of oxygen his condition was getting worse, and in normal circumstances he would probably have been kept in bed. Norton, too, was far from well.

They were certainly in no condition to be setting out to make the greatest effort of their lives, at an altitude higher than any man had ever climbed before.

They left their little tent at six-forty-five. They worked their way diagonally across the North Face of the mountain, for they reckoned that this was an easier line of approach than along the crest of the main Northeast Ridge which, they could now see, was very narrow. Even though the climbing was still easy, their progress was very slow. With their lungs fighting for oxygen they were forced to take half-a-dozen gasping breaths at every step. Even so they had to stop and rest for a minute or two every few yards. Norton says that it was his ambition to take twenty steps without stopping to rest, panting, with his elbow resting on his knee. Yet he never remembers achieving so many. Thirteen was nearer the mark.

Somervell's cough was a terrible handicap. It tore the lining from his throat, filled his mouth with blood and



The Tragedy of 1924

sometimes came very near to choking him. By midday they had reached an altitude of 28,000 feet and the ground was becoming increasingly difficult. Somervell could go no further, he sank down on a ledge and told Norton to go on by himself.

But Norton, too, was near the end of his strength. He was suffering from trouble with his eyes due to his extreme exhaustion. He was seeing double and was unable to focus his eyes properly, so that he was often in doubt as to where to place his feet. He struggled on for an hour. At one o'clock he found himself in a deep gulley at a height of 28,100 feet, almost directly below the summit. The sides of the gulley were composed of steep smooth rock with very little foothold. A slip would have sent him crashing down the great precipice below him. In the past hour he had climbed only about a hundred feet. He realized that in his present condition he had no chance of getting to the top. He realized, too, that if he struggled on any further, and delayed his return much longer, there would be little chance for him and Somervell to get down alive.

Yet there was the summit, now only nine hundred feet above him, bathed in sunlight; the mountain was in perfect condition for climbing, and above all there was no wind. Even with his mind numbed by exhaustion and the deadening effect of altitude, Norton must have felt a pang of bitter disappointment.

Climbing to more than 28,000 feet without the help of oxygen apparatus was a very fine achievement. For

The Tragedy of 1924

men in the condition Norton and Somervell were in, after weeks of unrelenting hardship and frustrated toil, at altitudes which sap the strength of the strongest like a wasting disease, their feat was a prodigious display of courage and determination. As I have said before, I believe that if they had not become involved in those earlier fruitless efforts, they would have reached the top. I am not alone in this belief.

Once again, it was lucky that they turned back when they did. Before reaching Camp VI Somervell was seized by such a violent fit of coughing that he could scarcely move on down. Within an hour of their reaching the North Col, Norton was totally blind and remained so for three days. Both men had forced their bodies to the utmost limits of human endurance.

It might have appeared that the expedition had shot its bolt. It would have been reasonable to suppose that its members would resign themselves to failure. But Mallory was in no mood to accept defeat. Stung by bitter disappointment at the failure of his party to get above Camp V on June 3, immediately on his return to the North Col he began to prepare yet another attempt. The failure of Norton and Somervell only hardened his resolve. He decided to take Irvine with him and to use oxygen.

On June 5, Mallory and Irvine spent the day making their final preparations at the North Col, with Odell helping them to make last minute adjustments to the oxygen apparatus. The following morning they set off up the Northeast Spur for Camp V, taking eight Sherpas with



The Tragedy of 1924

them. Odell stayed at Camp IV, and in the late afternoon received a note sent down by Mallory from Camp V with four of the Sherpas telling him that there was no wind up there and that the prospects looked good.

The next day, the 7th, working to a carefully timed plan, Odell went up to Camp V in support of Mallory and Irvine who moved up on to Camp VI. He spent that night alone at Camp V and on the morning of June 8 started up towards the highest camp. This, of course, was the day on which Mallory and Irvine were to make their attempt on the summit. As Odell climbed upward the mists kept sweeping across the upper part of the mountain, but there was not much wind, and he imagined that, high above him, Mallory and Irvine would be making good progress towards the summit.

At about one o'clock Odell reached the top of a small cliff jutting out of the ridge. "As I reached the top," he wrote later, "there was a sudden clearing of the atmosphere above me and I saw the whole summit ridge and final peak of Everest unveiled. I noticed far away on the snow slope leading up to what seemed to me to be the last step but one from the base of the final pyramid, a tiny object moving and approaching the rock step. A second object followed, and then the first climbed to the top of the step."

Then the mists came down again, and Odell could see no more. He realized, however, that Mallory and Irvine, whom he had just seen, must be three or four hours behind schedule. There was new snow on the rocks near the summit ridge and this, Odell thought, might well have delayed them.



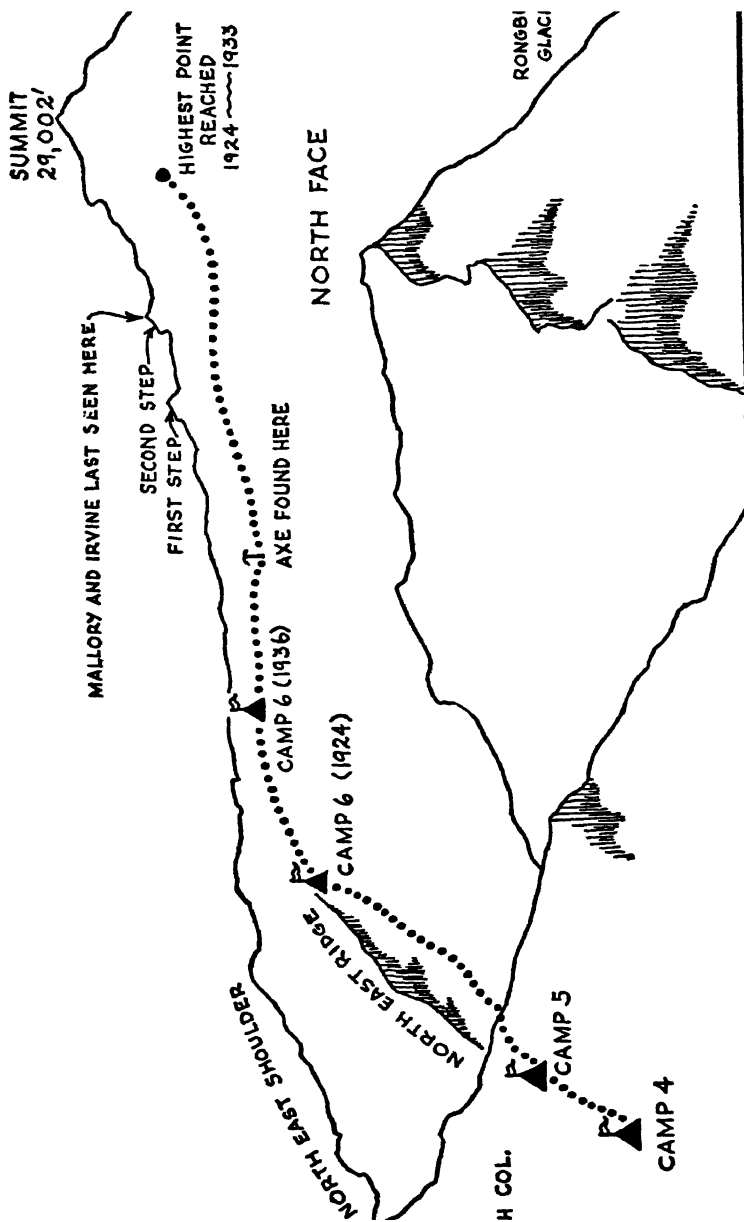
The Tragedy of 1924

He continued on to Camp VI, arriving there about two o'clock. Just then snow began to fall and the wind to rise. The camp was in a rather concealed position and would, Odell realized, be difficult to find in the thick mist and falling snow. He therefore went outside, scrambled about two hundred feet up toward the summit, and shouted so that Mallory and Irvine, had they been on their way back, might have been directed toward the camp. He then came back, and waited. While he was doing so, the squall blew itself out, the mists drifted away, and the whole of the North Face was revealed in bright sunshine, beneath its covering of new snow. All the upper slopes were visible, but he could see no sign of the men on the mountain above.

Already fearing that something had happened to Mallory and Irvine, he was tempted to remain at Camp VI. But the tiny tent there would hold only two men, and he had agreed with Mallory that, whatever happened, he would return to the North Col so as to avoid congestion at the high camps. So, leaving it as late as he dared, he reluctantly went down to Camp IV, where he was met by Hazard.

That evening Odell and Hazard watched closely for signs of Mallory's and Irvine's return to Camp V. They saw no signs—either of moving figures or, after dusk, of distress flares or signals. The following morning Odell again set out for Camp V, hoping against hope that the two men above might have got back to Camp VI late the previous evening, or possibly even down to Camp V. He spent another night at Camp V, and the next day he went on alone to Camp VI. Mallory and Irvine had not returned there, and it was obvious that they had perished.





The Tragedy of 1924

But Odell, still hoping to find some traces of them, went on in a solitary search. He found none and with a heavy heart returned to the North Col.

The monsoon was about to break. Within a few days, at the most, movement on the upper slopes of the mountain would be impossible. Nothing more could be done.

What happened to Mallory and Irvine is still a mystery and it is most unlikely that we shall ever know. The only evidence that we have is the ice-ax that was found at 27,600 feet, a short way above our Camp VI, in 1933. This suggests that one of them slipped at this point and dragged his companion down and that the ax was dropped by its owner at this fatal moment.

It is possible that Mallory and Irvine reached the top and died on the way down. We should all of us like to think that this was so. For no man deserved more than Mallory to experience that moment of supreme joy that success would have given him.

FRUSTRATED HOPES

NINE YEARS ELAPSED before another attempt was made to climb Everest. This was not because the climbers had become dispirited, but simply because the Tibetan Government was not willing to grant their permission. At length, however, in 1932 it agreed to do so, and the Everest Committee decided at once to organize another attempt for the following year, and invited Hugh Rutledge to lead it.

Two of the party chosen had been to Everest before: E. O. Shebbare (transport officer) and C. G. Crawford; of the rest F. S. Smythe, Raymond Greene, E. St. J. Birnie and I had climbed Kamet (25,447 feet) in 1931; H. Boustead and G. Wood-Johnson had also been to the Himalayas before, and L. R. Wager, P. Wyn Harris, J. L. Longland, T. A. Brocklebank and W. McLean were all experienced mountaineers in other fields.

Seven of us sailed together from England in January, 1933, and most of our time on the way out was spent discussing the task before us. We were, all of us, very confident that this time we would succeed; but all the same



Frustrated Hopes

there were a great many things remaining to consider.

The main problem, everyone agreed, lay in the establishment of the high camps above the North Col. It was obvious that the highest camp, from which the final climb to the summit would be made, must be pitched considerably higher than Camp VI had been pitched in 1924. If this was done, however, would it be possible to have only two Camps above the North Col? In other words, could the Sherpas carry the necessary loads from about 23,000 feet to, say, 28,000 feet in only two stages? It seemed unlikely. Yet setting up another high camp brought its own troubles—for more men would be needed to carry the actual tents and the supplies, and more supplies would be needed to feed and accommodate the additional men.

The second question was that of the route to be followed. When the first explorers had seen Everest they had believed, as we have seen, that the actual climbing difficulties on the upper part of the mountain would be slight. Weather might be a problem, and it was obvious that the rarefied air would be a serious obstacle and possible danger. It was thought, however, that the rocks themselves would not be difficult to climb. But as men got closer to the upper slopes they realized that this was not the case. The route from the top of the North Col, up the northeast spur to its junction with the Northeast Ridge did not, it is true, present any major difficulties. It was above this that the real trouble began.

The upper 2,000 feet of the mountain was built of three horizontal bands or strata. The first of these, composed



Frustrated Hopes

of a light-colored rock, was about eight hundred feet thick and lay between 27,200 feet and 28,000 feet above sea level. This was known as the "Yellow Band." Above this was a stratum of dark rock called the "Black Band"; on this again was superimposed another layer which formed the summit cap of "Final Pyramid." The surface of the Yellow Band was composed of a series of overlapping slabs set at a fairly steep angle and sloping outward. The surface of the Black Band was considerably steeper, and, as the rock strata were also tilted toward the north, they formed a series of overhangs. The Final Pyramid, though steep, was more broken and appeared to offer several relatively easy routes.

From the purely mountaineering standpoint, then, the crux of the climb was clearly to get past the Black Band. At first sight the obvious route to follow from the head of the northeast spur seemed to be along the crest of the main Northeast Ridge. This could be seen in profile from the Base Camp, and its general angle was very gentle. But ridges, and particularly Himalayan ridges, are apt to be deceptive and often turn out to be knife sharp. Climbing along such a knife-edged crest is a slow and laborious business, and any irregularity might present a formidable obstacle. Also, by the intersection of the Northeast Ridge and the Black Band two steps were formed. The "First Step" did not appear to be very formidable, but the "Second Step" was vertical, and its height was estimated at some two hundred feet. A third objection to the ridge route was the fact that the climber would be exposed to the full

Frustrated Hopes

force of the wind, which, if at all violent, might blow him clean off the mountain.

The alternative to following the crest of the Northeast Ridge was to traverse diagonally across to the head of a conspicuous gulley that ran down the North Face from a point below the Black Band, a few hundred yards beyond the Second Step. This gulley was known as the Great Couloir. It was flanked on the west by a prominent ridge which formed the only breach in the wall of the Black Band. Norton had chosen this route and had reached the Great Couloir, but had failed to cross it, largely on account of physical exhaustion, but partly, too, because of the treacherous nature of the tilted slabs over which he was climbing. Mallory had favored the ridge route, and his views were strongly supported by the rock-climbing experts of our party, of whom Longland was the recognized ace.

As to weather, most people were agreed. It was expected that there would be a break of about two weeks, in late May and early June, between the end of the spring gales and the beginning of the monsoon which would coat the mountain with fresh snow and make it unclimbable. The art lay in timing the attempts so that the right men were put in the right place in the right condition at just the right time.

The relative simplicity of this idea was complicated by the fact that in 1933 we did not know at what stage in acclimatization men *were* in the right condition. All that was known was that if a climber was placed too early in,



Frustrated Hopes

for instance, Camp IV, he would have passed his peak of condition before the call came for his main effort; if he was placed there too late he would not have reached his best condition when the time came for him to go all out for the top.

In those days none of us had much faith in the use of oxygen. In 1924 Norton and Somervell had reached a point only nine hundred feet below the top without it, while Mallory and Irvine, who were using it, had perished. The only apparatus then available was very heavy and awkward to carry. Besides, as I have mentioned, some of us felt that if the mountain were going to be climbed it should be done without this artificial aid. So all our planning was done on this basis; and in fact oxygen was not used at all for the attempts in 1933.

We reached Rongbuk on April 16, and the work of carrying loads up from the Base Camp began three days later. On May 2 we established Camp III in the upper basin of the East Rongbuk Glacier, in full view of the eastern slopes of the North Col. These are composed of steep broken glacier and rise about 1,500 feet from the level ice below to the crest of the col. As the glacier is moving slowly downward, the slopes present a different appearance from year to year. Our task then was to find a way up them, to make a ladder of large, safe steps and to fix ropes to serve as hand rails over all the difficult sections, so that it would be possible for laden porters to pass up and down with ease and safety.

We started the work almost at once. It was about an



Frustrated Hopes

hour's walk from Camp III to the foot of the steep slopes below the col. The ice of the upper basin had been swept clear of snow by the wind. It was rather like walking on an ice-skating rink and required some little practice to avoid sitting down heavily. But fortunately the slopes above were composed of hard snow, for it would have been a tremendously laborious task to cut steps all the way up in hard ice, and also very difficult to fix the ropes. As it was, it was very tough work. Even at that height any physical exertion left one gasping for breath. We took turns of about twenty minutes each at cutting the steps. Even that seemed an eternity and it was a great relief to be told that the time was up. We climbed about a third of the way up to the col on the first day.

There followed days of storm and wind which rendered work impossible. Below, we had experienced fairly severe conditions, but Camp III as much more exposed to the weather, which deteriorated a good deal during the two weeks after our arrival there. I gathered from the Sherpas who had been with the 1924 Expedition that the conditions were very similar to those experienced in that year. But we had an additional item of equipment, which added enormously to our comfort and rendered us impervious to the buffeting of the wind. This was a large, double-skinned, dome-shaped tent of a type that had been used by Watkins in the Arctic. It had a circular floor about fifteen feet in diameter, and was built round a bamboo frame. the outer skin fitting over the frame while the inner skin hung from it, so that there was an air space about a foot



Frustrated Hopes

wide between the two. It was difficult to erect, but once up it was as snug as a well-built log hut.

As soon as there was a lull in the wind, we resumed work on the slopes below the col. We found that the steps we had already cut had been swept away, and that not a trace of them remained. So as to take advantage of brief periods of fine weather, we put a camp, IIIA, at the foot of the slopes. This was a bleak and comfortless spot, and even more exposed to the wind than Camp III, which was situated on rocks close under the cliffs of the North Peak. The new camp was pitched on hard, smooth ice on which it was difficult to anchor the tents. One night, during a particularly violent storm, one of them broke loose from its moorings, causing a certain amount of excitement. But the new position was a great help, and from it we were able to make progress. But our advance was very slow, and as we set out day after day I began to wonder if we should ever reach the col. The most difficult part was about half way up. This consisted of an ice wall about twenty feet high, topped by a very steep ice slope. We had a lot of fun getting up it, and succeeded largely owing to a fine lead by Smythe. We hung a rope ladder down it for subsequent use.

At last, by May 15, the road of steps and fixed ropes was complete, and we established Camp IV on an ice ledge, some twenty feet wide, about two hundred feet below the crest of the col. The ledge was formed by the lower lip of a great crevasse, the upper lip of which, forty feet above, almost overhung the ledge. The camp was well sheltered





The Conquerors of Everest

Frustrated Hopes

and quite comfortable, the only disadvantage being the danger of small snow avalanches falling from above.

For the next four days the storm was continuous, and we could do nothing but lie in our sleeping bags. Nor was any communication possible with the camps below. But on the evening of the 19th, the wind dropped and Smythe and I climbed up the last two hundred feet. Apart from the ice wall this was by far the steepest part of the North Col slopes. When we reached the narrow crest of the col we were met by a most glorious view to the west, over range after range of giant peaks, draped by dark cloud banners, wild and shattered by the gale. The mighty scene was partly lit by an angry red glow, which rose from a misty shadow lake of deep blue that often appears among high mountains in the evening after a storm.

About this time we received warning that an exceptionally early monsoon was spreading rapidly over the plains of India and would soon reach us. This serious news was confirmed by the appearance of the weather, and it was obvious that unless we were able to launch our attempt very soon we would be defeated.

On May 19 the weather seemed sufficiently fine for an attempt to be made to reach Camp V, but the attempt was beaten back by strong winds, and it was not until May 22 that Camp V was established by Birnie, Boustead, Wager, Wyn Harris and eight Sherpas. The plan was for these men to establish Camp VI as high as possible on the next day and leave Wager and Wyn Harris there to make the first attempt, followed a day later by Smythe and me.



Frustrated Hopes

We left Camp IV on May 23 according to plan. Above the North Col we were met by a strong wind, which increased in violence as we climbed. We were not altogether surprised, when at about four o'clock we reached Camp V, to find that the whole party was still there. Though by now the wind had dropped, it had been even more fierce at Camp V than it had been below, and it had been impossible to move on up the ridge. There was no room for two more at Camp V, and, though we offered to go down again, it was decided that Smythe and I should change places with Wyn Harris and Wager, in the hope of being able to push on up the mountain the next day.

The site of Camp V was composed of two platforms, one about four feet above the other. Each was sufficiently large to accommodate two "Meade" tents pitched end on. The tents themselves were about six feet six inches long by four feet wide by four feet high, made of light canvas and weighing about sixteen pounds each.

All that night and most of the next day a blizzard raged, and it was impossible to move either up or down. Fine snow, driven in through the thin canvas of the tent, covered everything inside and filtered in through the opening of our sleeping-bags. Being on the crest of a ridge, we received the full force of the gale. There was a continuous and mighty roar, and it seemed that the tents could not possibly stand up to such a hammering. At one point one of the guy ropes of our tent broke loose. Smythe struggled outside to deal with the situation, while I had the soft job of acting as ballast inside to hold the tent down. Smythe was



Frustrated Hopes

out for only a couple of minutes, but when he returned we spent hours rubbing and thumping his limbs to restore the circulation.

On the evening of the 24th the wind dropped and there was a great calm. We opened the tent flap and looked out. Such cloud as there was, lay far below us. The summit, greatly foreshortened, seemed close above us. Smythe and I discussed seriously whether it would not be better after all to make our attempt from Camp V. We were still fairly active, and all this delay at high altitudes was certainly doing us no good. Anyway, there was no need to decide yet; we could start out with Birnie and Boustead and the porters who would be going up to establish Camp VI, and judge our condition then. That we could have discussed such a hopeless proposition shows how we were feeling.

But while we were preparing to start next morning, the gale began to blow again. Standing outside the tents, the icy wind made us feel supremely helpless and foolish. The others had spent three nights at Camp V; already the Sherpas were nearly exhausted by the storm, and some of them were frostbitten. Had the weather been calm, it is doubtful if they would have been able to go far; any advance under the present conditions was out of the question. Nor could we ask the porters to stay at Camp V yet another day and night, even if we had been willing to do so ourselves. There was nothing to do but to retreat to the North Col. It was a bitter blow, for all the time we were losing strength, and none of us could hope to be really fit for another attempt.



Frustrated Hopes

In the meantime a good deal of snow had fallen on the North Col, and Camp IV was in danger of being buried by a snow avalanche. The following day, May 26, was spent moving the tents and stores to the crest of the col, while Rutledge, Greene, Crawford and Brocklebank escorted the exhausted porters down to Camp III. Some of them were very weak and required assistance over every step of the descent.

Birnie, who was chiefly responsible for handling the porters, now had a difficult job in finding more men who were able and willing to go up the ridge for the all-important task of establishing Camp VI. He was helped a great deal in this task by the remarkable courage and loyalty displayed by two of the old gang, Angtarkay and Kipa, who volunteered to go up again. It must be remembered that the Sherpas could not be expected to have the same feeling about the job that we had. These two had already done as much as could reasonably be expected of them. Their example was an inspiration to the other porters—and to us.

On May 28, Birnie, Longland, Wager and Wyn Harris went up to Camp V, with the eight porters. Smythe and I followed on the 29th. This time there was less wind than there had been before. We reached Camp V after five hours' climbing, and we were relieved to find that things had gone according to plan. Birnie was there in sole occupation. For the next few days his was the thankless task of remaining at Camp V in support of the parties attempting the summit.

During the afternoon the gale returned with something



Frustrated Hopes

of its old violence, and we were much relieved when Longland and the porters arrived from above. They had fought a tremendous struggle with the blizzard during the last two hours. Two of the porters were almost exhausted, and Longland had a difficult job in getting them down. Poor, gallant Kipa was in a bad way. It was already clear that he was out of his mind. For a long time he remained firmly convinced that he was dead. In consequence it was most difficult to persuade him to move, for, as he argued with perfect logic, dead men could not walk, even down hill. Even when, after several weeks, it dawned on him that he was, in fact, alive, he still clung to his original theory and attributed his phenomenal recovery to Greene's magic. Such temporary madness or hallucination is not uncommon at high altitudes.

Longland brought us the splendid news that Camp VI had been established at 27,400 feet; six hundred feet higher than it had been placed in 1924, and only 1,600 feet below the summit. This was a magnificent achievement on the part of the porters, and those who were leading them. Their feat gave us a fine chance of climbing the mountain. Wyn Harris and Wager were now at Camp VI, and would start the next morning on their attempt to reach the summit.

By now the force of the gale had slackened, and after we had provided them with a mug of tea each, Longland and six of the porters went on down to the North Col. The other two porters stayed the night with us.

The next morning was beautifully fine. Not a breath

Frustrated Hopes

of wind disturbed the stillness, no cloud obscured a single detail of the vast panorama beneath us. To the east was a fantastic tangle of ice and jagged rock, each fold a mighty peak, now dwarfed to insignificance; to the north the desert ranges of Tibet, calm and soft, stretched away into the violet distance. The sun was well up before Smythe and I left Camp V. In spite of a fairly good night I felt far from well. I was suffering from slight diarrhoea which accentuated the weakness due to the physical deterioration that was now becoming only too apparent. Every movement was a great effort, and I found myself counting each step and wondering when I could decently suggest a halt. At first the climbing was fairly difficult over a series of outward sloping buttresses, but after a while it became easier. We followed the ridge until, in a little hollow, we found the remains of the 1924 Camp VI—a few broken and bleached tent poles with some tattered wisps of canvas clinging to them. From there we traversed diagonally across the face of the mountain, climbing slowly up toward the Yellow Band.

The climbing was very easy, and it was possible while moving along to examine the features of the upper part of the mountain. The Second Step looked very impressive. It now appeared almost end-on, and I saw that on its southern side there was a steep ice slope. Suddenly I noticed two dots, one above the other, on this slope. We sat down to watch. Yes, they were moving, but very slowly, probably cutting steps in the ice. But after a while we were not quite so sure; we got up and went on. After a quarter of an



Frustrated Hopes

hour the dots did not appear to have moved, and we gradually realized that they were rocks sticking out of the ice. When we came closer we saw that they were a great deal larger than human beings. For all our knowledge of the features gleaned from photographs and distant study, we were greatly surprised by the scale of things up there; certainly everything was very much bigger than I had imagined. Longland had described the position of Camp VI, and as we approached we had no difficulty in spotting it—a little dark patch against the yellow limestone.

Before reaching the foot of the Yellow Band we had a prolonged struggle, first with a short ice slope which required step-cutting, then in powder snow into which we sank to our knees. I thought we would never get through it. That was followed by two hundred feet of difficult rock climbing, each sloping ledge laden with snow. I found this less unpleasant: to have a technical difficulty to grapple with, which required delicate balance rather than dull plodding, was somehow stimulating. All the same, we were both very thankful when we crawled into the tiny tent that was Camp VI. I believe it was somewhere about one o'clock.

Camp VI was no luxury establishment. A tiny recess at the head of a gulley and some loose stones had enabled the others to build a rough platform, perhaps three feet wide, on which to pitch the tent. The platform sloped downwards, and one side of the tent hung over the edge, forming a pocket. But at least it provided a place for us to lie down. After a rest we set about the task of melting

Frustrated Hopes

a saucepan of snow. At the other camps we had used Primus stoves, but these did not work above a certain altitude, and at Camp VI we used little cans of solid fuel. Even these were most inefficient at that height, and it took us an hour to provide two miserable cups of tepid water slightly colored with tea. Then we brewed some more against the return of Wager and Wyn Harris.

They arrived about the middle of the afternoon, showing every evidence of the tremendous effort they had made. They had tried to reach the ridge just below the Second Step but had met a continuous line of overhanging rock, so they had traversed along below the Black Band, and had reached the Great Couloir. This they had managed to cross, but had found the rocks on the other side laden with powder snow, which by about twelve-thirty had forced them to abandon the struggle. How far this decision had been induced by sheer exhaustion and how much by the difficulty of the ground, on which the slightest slip must have been fatal to both, it is difficult to determine. Wager has since told me that he has found it impossible to assess the real position in which they found themselves. At that altitude mental processes are so sluggish and inefficient that it is most difficult to retain a clear memory of what has actually occurred. In any case their decision was absolutely right; there was not the slightest chance of their reaching the summit, and to have persisted much farther would most probably have involved them in disaster.

Just below the crest of the Northeast Ridge they had found an ice-ax. This can only have belonged to Mallory



Frustrated Hopes

or Irvine and throws some small light upon their fate. It seems probable that they fell from the place where the ax was found. It may be that one of them slipped, the other put down his ax to brace himself against the jerk of the rope but was dragged down. Certainly the ax cannot have fallen, for had that happened, there was nothing to prevent it from bounding down at least to the foot of the Yellow Band.

I had gone so badly that day that I offered to change places with one of the others, and let him try again with Smythe. But both of them had had more than enough. Wager was gasping for breath in a most alarming manner and Wyn looked terribly tired. So after a short rest and a cup of our home-brewed nectar they went on down to Camp V.

That night and the one which followed were by far the worst that I spent on the mountain. I had the lower berth and kept rolling off the ledge into the pocket formed by the tent floor. Smythe spent the time rolling on top of me. From sheer self-preservation, to prevent myself from being suffocated, I had to kick him with my knee or jab him with my elbow. This I did over and over again, hoping vaguely that the action would not reveal the temper that was undoubtedly behind the blows. I did not sleep at all and I do not think Smythe fared much better. Several hours before dawn we gave up the unequal struggle and started to prepare for the climb.

But before it was light, snow started to fall, and presently a strong wind was driving the flakes against the side of the



Frustrated Hopes

tent. It was no use thinking of starting in those conditions, and there was nothing to do but resign ourselves to spending the day at Camp VI. I think we both realized then that our slender chance of reaching the summit had now vanished. In the first place the snow that was now falling would, at the lowest estimate, increase the difficulties enormously; secondly, our physical deterioration due to lack of oxygen, sleep and appetite must now be very rapid. Indeed, we were worried, so far as we were capable of worrying about anything, by the question of how long it was possible to live at 27,400 feet. Would the danger line be apparent? or would one suddenly find oneself incapable of moving? or perhaps just die in one's sleep? Nobody had ever tried the experiment of a prolonged stay at such an altitude.

It was a dreary day. The wind dropped in the afternoon. Looking out of the little window at the back of the tent, we could see the summit. Very little of the intervening ground was visible, and it looked ridiculously close. Well, 1,600 feet was not far; without the powder snow on the rocks and in sea-level conditions one could climb it comfortably in an hour! An ambition of a lifetime, and we were too weak to reach out to grasp it! Fortunately our dulled intellects lessened the sting of this thought, but it was sharp enough.

The next night was a repetition of the first: tossing, kicking, panting. At about three o'clock in the morning we started melting some snow to make a brew of something—*café au lait* I believe it was called, though everything tasted



Frustrated Hopes

much the same. Thawing our boots was the longest job; they were like lumps of rock. We had intended taking them to bed with us to keep them soft, but, like so many good resolutions made below, this had not been done. Yet by holding them over candle flames we managed to make the uppers sufficiently pliable, and, with a tremendous effort, to force our feet, already encased in four or five pairs of socks, into them. For the rest we each wore two pairs of long woollen pants, seven sweaters and a loosely-fitting windproof with a hood that went over a balaclava helmet. Our hands were protected by one pair of thick woollen mittens covered with a pair of sheepskin gauntlets. I felt about as suitably equipped for delicate rock climbing as a fully-rigged deep-sea diver for dancing a tango. It was quiet outside and we waited for the dawn.

It must have been about seven-thirty when we started. It was a fine morning, though bitterly cold. I had a stomach ache and felt as weak as a kitten. We started climbing diagonally up toward the head of the Great Couloir, taking the lead in turns of about a quarter of an hour each. The ground was not exactly difficult or particularly steep. But it was rather like being on the tiles of a roof; one had to rely largely on the friction of boot-nails on the shelving ledges. A slip might have been difficult to check. The more exposed parts of the Yellow Band had been swept clear of snow by the wind, but in the little gullies and cracks there were deep deposits of powder snow which obscured all foothold. We were not climbing quickly, but our progress was steady and fast enough. After about two hours I



Frustrated Hopes

began to feel sick and it appeared to me that I was approaching the end of my tether. In such a condition I would certainly have been no use to Smythe in an emergency; also it was a firm rule among us that one simply must not go on until one collapsed altogether, as that would have placed one's companion in a most awkward position. So I decided to stop and let Smythe go on alone.

By now it was fairly warm in the sun. I sat down and watched Smythe making his way slowly along the slabs and wondered if I might follow him at my own pace. But then it occurred to me that, seeing me coming, he might wait for me, so I reluctantly gave up the idea, and after waiting a little longer started back to Camp VI.

It was about one-thirty when Smythe returned. He had reached the Great Couloir, but had found masses of new snow on the rocks beyond and had been compelled to return from much the same place that the previous party had reached. The height at this point was estimated at 28,100 feet. The altitude of all the major features on the North Face of Everest had been determined (to within a hundred feet or so) by theodolite observations from below, and it is from these computations that we were able to judge with reasonable accuracy the height of any point on the upper part of the face. The readings of an aneroid barometer at that altitude would be hopelessly inaccurate.

Smythe was so exhausted by his effort that he was reluctant to move farther down that day. To give him the chance of a good night's sleep, and also to relieve the anxiety of the unfortunate Birnie, it was decided that I should go down



Frustrated Hopes

to Camp V and that Smythe should come all the way down to the North Col on the following day. With the tent to himself and two sets of sleeping-bags he would be fairly comfortable.

I left Camp VI at two-thirty. By now we were enveloped in clouds. To avoid the difficult pitch below the camp I traversed along towards the northeast shoulder as the other descending parties had done. For some distance the way was along a sloping terrace that provided fairly easy going, but near the northeast shoulder the terrace petered out into steep rocks that were now laden with powder snow. At one point I nearly came to grief by lowering myself on to a ledge of snow which promptly slipped away and left me hanging by my fingers.

I had scarcely reached the easier rocks below when I was met by a tremendous blast of wind. I have never known anything like the suddenness of those Everest storms. They arrived out of perfect stillness, without any warning, and at the full height of their power. This was the fiercest gale I had encountered on the mountain—at any rate while out of shelter. I found it impossible to stand up against it even for a moment, and all I could do was to cower against a rock with my back to the wind. Luckily the wind did not maintain its maximum velocity for long and after a time I was able to proceed in short rushes.

But presently I found that I had lost all sense of direction. The clouds were thick and I could see no more than a few yards ahead of me. It was no use going on down, for if I missed the top of the northeast spur I should get



Frustrated Hopes

myself into a hopeless mess. I sat down helplessly and waited. For those who wish to achieve complete philosophical detachment, there is perhaps something to recommend life at high altitudes. The mind appears to be quite incapable of strong emotion of any sort. To be lost on a mountain side in such circumstances would normally be an unpleasantly exciting experience to the calmest of men. I found it neither unpleasant nor exciting, and was blissfully resigned to whatever the fates chose to do with me.

I have no idea how long I waited, but eventually a sharp spire appeared through the driving mist and snow. I remembered having seen this before and started toward it. Presently a window opened, and far below I saw the summit of the North Peak, a rock in a storm-tossed sea. Soon I reached the little hollow of the 1924 Camp VI, which provided a welcome refuge from the storm.

I almost enjoyed the rest of the descent to Camp V. I felt gloriously careless as I bumped and slithered down from ledge to ledge; the wind provided a mad confusion that matched my state of mind. When I arrived I found that Birnie had made a tremendous brew of hot liquid; I think it was tea, but whatever it was it was excellent. He, poor fellow, was very weak. He had spent longer above the North Col than any of us; his feet were frost-bitten and the altitude had taken a severe toll of his strength. He had had none of the interest of the attempts on the summit; only a long, lonely vigil and anxiety. But I found his cheerfulness even more warming than his tea. It was nearly dark before I had the strength of mind to go out into the storm



Frustrated Hopes

again to collect a sleeping-bag from the other tent. I found this to be full of snow and though I tried for a quarter of an hour, my fingers were so lifeless that I could not undo the fastenings. I tried to tear the canvas open with no more success, and finally I gave it up. Birnie gave me half his sleeping bag and we spent a miserable night huddled together in a tent half-filled with snow, listening to the crazy raving of the storm. This had partly spent itself by morning, and when the sun was up we made our way slowly down to the North Col. Smythe arrived some hours later.

The whole party retreated down the glacier to the Base Camp. After a week's rest we returned to Camp III in the hope of making another attempt. But it was soon obvious that this was impossible. The monsoon had broken. The slopes of the North Col were now very dangerous and masses of new snow had fallen on Everest which would render the last 2,000 feet unclimbable.

The Challenge Is Taken Up Again

IN THE SPRING OF 1935 the Everest Committee secured permission to send out further expeditions to the mountain in that and the following year. It was too late to organize a full-scale attempt in 1935. Instead, I was invited to take out a reconnaissance expedition. Our main tasks were to examine snow conditions on the mountain during the monsoon and to explore the country which had been left unsurveyed by the previous expeditions. We also wished to investigate the possibility of crossing from the basin of the Rongbuk Glaciers to the West Cwm, which, it was thought, might provide an alternative approach to the summit of Everest from the south. For by now we were convinced that the main barrier to climbing the mountain from the north was the treacherous, overhanging slabs on the upper part of the North Face.

We left Darjeeling in May, and, after spending some



The Challenge Is Taken Up Again

time exploring a range of mountains to the northeast of Everest, reached Rongbuk on July 6. We went straight up to Camp III which we reached three days later.

About three hundred yards above Camp III we found the body of Maurice Wilson, who had attempted to climb Mount Everest alone the previous year and about whom nothing more had been heard. From a diary which we found on his body and from subsequent inquiries, we were able to piece together his curious story. He was a man of about thirty-seven and had served in France during the first World War. He had developed a theory that if a man were to go without food for three weeks he would reach a stage of semi-consciousness on the borderland of life and death, when his physical mind would establish direct communication with his soul. When he emerged from this state he would be cleansed of all bodily and spiritual ills; he would be as a new-born child but with the benefit of the experience of his previous life, and with greatly increased physical and spiritual strength. Wilson had fanatical faith in his theory. He believed moreover that he had seen a vision in which he had received divine instruction to preach the doctrine to mankind. Somehow the word "Everest" had featured in the vision, and he thought that it was intended to indicate the means by which he could achieve his purpose. Obviously if he succeeded in reaching the summit of Mount Everest single-handed, the feat would cause no small stir, and his theory would receive wide publicity.

He knew nothing whatever about mountaineering. At



The Challenge Is Taken Up Again

the time, however, the Houston Everest Flight was receiving considerable press publicity. Presumably this gave him the idea that if he were to fly a plane as high as he could and crash it on the side of the mountain he would be able to climb the rest of the way to the summit and return on foot. So with this object in view he learned to fly, bought a small airplane and set out for India. At Cairo he was stopped and turned back by the authorities. But eventually he reached Purnea, in India, where his machine was confiscated. He went to Darjeeling, where he stayed for four months, training himself and making secret preparations for his journey to Mount Everest. He got in touch with some of the Sherpas who had been with us the year before and they agreed to smuggle him through Sikkim and into Tibet. He then covered up his tracks by paying for his room at the hotel six months in advance so that he could keep it locked with his things inside, and gave it out that he had been invited by a friend to go on a tiger hunt. It was thus some time before the authorities discovered that he was missing.

In the meantime, by wearing a disguise and travelling at night, he had succeeded in passing through Sikkim and into Tibet. There he traveled more openly, but with practically no baggage; and by avoiding the big places he and his three Sherpa companions attracted no attention. When they arrived at Rongbuk he told the Abbott of the monastery that he was a member of the 1933 expedition and induced him to hand over a few small items of equipment that we had left there. He had evidently made a good impression



The Challenge Is Taken Up Again

upon the old man, who, when we visited the monastery in 1935, talked to us a great deal about him. He left the Sherpas at Rongbuk and started up the glacier alone with the complete conviction that he would reach the summit in three or four days. He had with him a small shaving mirror with which he proposed to heliograph to those at Rongbuk from the summit, so as to provide proof that he had actually reached it. He was used to starving himself and intended to live on a small quantity of rice water. It was early in April and he encountered the usual spring gales on the East Rongbuk Glacier. He appears to have reached a point somewhere about Camp II before he was forced to retreat, exhausted.

After a fortnight's rest he set out again, this time with the Sherpas. They reached Camp III, and the Sherpas showed him a dump of food which we had left about a half mile beyond, and which contained all kinds of luxuries such as chocolate, Ovaltine, sardines, baked beans and crackers, with which he was delighted. He left the Sherpas at Camp III and went on alone. He had evidently expected to find intact the steps which we had cut in the slopes below the North Col, and he was bitterly disappointed to find nothing but bare windswept ice and snow. Though he had an ice-ax, he did not know how to use it and could make little headway up the slopes. He camped alone on the rocks near the dump and set out day after day to renew his fruitless attempts to reach the col. Though he had plenty of food, he was gradually weakened by the severe conditions. This was clear from the entries in his diary, which



The Challenge Is Taken Up Again

became shorter and less coherent toward the end. But he would not give up and still clung to his faith in divine inspiration. The last entry was on May 31, 1934. He died in his sleep, lying in his small tent. This had been smashed by storms, and all the fragments, except the guy-lines which were attached to boulders, had been swept away.

The Sherpas said they had waited a month for him at Camp III. This was clearly untrue, for they would certainly have visited the food-dump from time to time and would have found the body. We had two of the men with us in 1935, but one had been attached to the survey party and the other had been sent down to fetch some stuff from Camp II on the day that we found the body. We buried it in a crevasse.

It had been generally supposed that it would be useless to attempt Mount Everest during the monsoon. But there was little practical evidence to support this belief. Before 1933 complete faith had been placed in the advent of a fine spell during the few weeks immediately preceding the arrival of the monsoon, and the exploration of further possibilities was thought unnecessary. This faith, however, was somewhat shaken by our experience in 1933. Some people expressed the opinion that the monsoon season would offer a better chance of success than the late spring. These ideas were, I believe, based largely upon experiences in the Karakoram and those of the German expeditions to Kanchenjunga in 1929 and 1931. One of our jobs in 1935 was to investigate the matter.

There were two factors: the risk of avalanches on the



The Challenge Is Taken Up Again

slopes below the North Col and the condition of the snow on the upper part of the mountain. Regarding the former we had little evidence, and of the latter we had none. In 1922 a disastrous avalanche had overtaken the party attempting to reach the North Col in June. In June, 1933, Crawford and Brocklebank had reported that the slopes were dangerous (Crawford had himself been involved in the 1922 avalanche). On the other hand, in 1921, the North Col had been reached safely in September; but with all respect to Mallory's skill as a mountaineer this achievement may have been due more to luck than to good judgment. In the Alps the study of snow conditions has been reduced to an exact science, but we were still very ignorant about Himalayan snow. It was believed that the dangerous conditions prevailing on the North Col in June were caused by the wind blowing the newly fallen snow from the west side of the col and depositing it at a low temperature on the eastern slopes, thus producing what is known as "wind-slab", one of the most vicious of all conditions of mountain snow. But it seemed reasonable to suppose that these causes might not be operative later in the summer.

When we arrived there toward the middle of July, 1935, we examined the slopes below the North Col with extreme care. Kempson, one of my party, had had wide experience of winter mountaineering in the Alps, and by now I had seen a good deal of Himalayan snow conditions. We could find nothing wrong with the slopes. With ten Sherpas it took us three easy days to establish a camp on the crest of the col. On the first of these days we had a slight argument



The Challenge Is Taken Up Again

with the Sherpas. They had evidently been shaken by the discovery of Wilson's body and regarded it as a bad omen. So half-way up to the col they refused to go any further. However, a heart-to-heart talk in camp that evening set the matter right, and after that we had no more trouble.

Three of us, Warren, Kempson and I, and eight Sherpas occupied the camp on the North Col with enough food to last us for at least sixteen days. We intended to push on up the mountain at least to 27,000 feet to see what the conditions were like up there. Actually we were in a position to make a strong attempt on the summit if these had proved to be good. The whole of the North Face was plastered with snow and very little rock was showing. At lower levels the heat of the sun and the cold nights would have combined in a short time to pack the snow and provide a splendid surface up which one could climb without difficulty. The weather for the past fortnight had been very fine. But it was thought that practically no melting takes place above about 26,000 feet, and that except where it is subjected to great pressure the snow remains powdery. It was our object to prove or disprove this theory. We had seen in 1933 how difficult it was to climb those upper slabs with even a slight covering of powder snow; a blanket of this substance covering the whole face to a depth of perhaps eight or ten feet would present an impassable obstacle. If, on the other hand, the snow were to consolidate in the normal manner, the mountain would be a great deal easier to climb during the monsoon than at any other season.

The weather grew worse, and we waited for four days on



The Challenge Is Taken Up Again

the North Col. One day we climbed some way up the Northeast Spur for exercise, but it seemed unwise to establish the higher camps until the weather improved. At length we decided to retreat to Camp III and to wait until the bad spell had spent itself. We had the whole summer before us and it would be best to preserve our condition. So we left tents and stores on the col and started down. We were disconcerted to find that two hundred feet below the crest of the col the entire surface of the slope had slipped away for a distance of a quarter of a mile and to a depth of six feet. The resulting avalanche had crashed down on to the glacier below. The snow that we had examined with such care, about which we had been quite satisfied and over which we had been blithely working for three days had been completely rotten.

Two things were clear: first that the slopes below the North Col were not safe, and secondly that we were not competent to judge snow conditions at that particular time and place. The eastern slopes of the North Col form a semicircular basin, unusually well protected from the wind. The midday sun in July, only six degrees from the vertical, beats down with tremendous force upon the stagnant air of this blinding-white cauldron. On occasion I have suffered more from the heat on the snow slopes of the North Col, at 22,500 feet, than I ever have on the plains of India. At night it barely freezes. As a result of these conditions, unusual even in the Everest region, the main body of the snow rots to a great depth, while the surface maintains the deceptive appearance of solidity. This at any rate was my



The Challenge Is Taken Up Again

explanation of the great avalanche, and if it were correct it was clear that the slopes would remain dangerous throughout the summer. We decided therefore to leave the North Col alone, for a while at least, and to study snow conditions on other mountains in the vicinity. On these peaks we generally found fairly good snow, presumably owing to better ventilation and lower night temperatures. But on the three occasions when we climbed above 23,000 feet, conditions changed abruptly at about that altitude and we found ourselves struggling in a bottomless morass of soft snow. By the end of August, though the snow on the ridges was still good, the upper glaciers were difficult to negotiate. The ice below the surface was rotten and honey-combed with reservoirs of water.

Though unable to work on Everest itself, we still had plenty to do. We tried to get across the main range to the south to reach the West Cwm. But though we reached several points on the main divide, from which we saw into the entrance of the mysterious Cwm, we found it was impossible to descend on the side of the range so as to reach it. But you will hear more about the West Cwm in the next chapter. We climbed twenty-six peaks, all of them between 20,000 and 23,600 feet in height. Michael Spender, the expedition's surveyor, covered a great area of country.

I would have liked to continue with our travels throughout the winter, for besides the intense interest of exploring those ranges there were many questions regarding conditions at high altitudes during the winter months that required (and still require) an answer. But I had promised



The Challenge Is Taken Up Again

to return to England to assist in the preparations for the expedition of the following year.

The 1936 Expedition, again led by Hugh Rutledge, was a bitter disappointment. The monsoon broke at the beginning of May, about six weeks early, and we failed even to climb above the North Col, on which once more we narrowly escaped disaster in another avalanche.

There was another attempt in 1938, this time led by H. W. Tilman. I had climbed a great deal with him in various parts of the world and we had always favored small, mobile expeditions rather than the large cumbersome organizations which had so often attempted the great peaks of the Himalaya. The 1938 party consisted of only seven climbers. Tilman, Smythe, Odell, Oliver, Lloyd, Warren and myself. The expedition cost only £3,000, compared with £12,000 which had been spent on each of the previous full-scale attempts.

With considerable difficulty, flogging a way through the snow-bound valleys of Sikkim in early March, we reached Rongbuk earlier than ever before. With a team of thirty Sherpas we laid the usual camps on the glacier and established Camp III about April 20th. The usual spring gales were blowing on the mountain, and it was clear that until they had abated there was nothing to be gained by pushing on, and everything might be lost. We reckoned that we had nearly a month to spare, and that part of this time would best be spent improving the health of the party. For like all previous parties on the mountain we were all suffering from coughs, colds and influenza. We had already been up



The Challenge Is Taken Up Again

to the North Col and had found the route to be comparatively easy. So, leaving the bulk of the supplies and equipment at Camp III, we crossed the Lhakpa La to the east and spent a week resting in the pleasant pinewoods near Kharta. We returned to Camp III at the beginning of May, thoroughly healthy and free from the bronchial troubles that had always been a great bugbear on Everest.

But once again we met with misfortune. The weather in 1938 followed exactly the same pattern as that in 1936. The monsoon broke right at the beginning of May, and when we got back to Camp III we found Everest covered in a deep mantle of snow. This was a bitter blow and we began to feel somewhat desperate. We were resolved somehow to reach the upper part of the mountain. It would have been madness to risk the eastern slopes of the North Col, which had taught us so many sharp lessons. We decided to attempt to reach it from the western side, which Mallory had regarded as impracticable. We made our way round to the head of the main Rongbuk Glacier. From there a narrow corridor led to the foot of the slopes leading to the col; it was menaced by avalanches both from the southeast face of the North Peak and from the North Face of Everest; a big avalanche had come down a few days earlier and we camped amid its debris. The slopes leading to the col were long, continuously exposed and very steep. Except upon the upper three hundred feet, a layer of snow about three feet deep had recently slipped away, leaving a surface of hard ice. Though this was solid enough, it provided no safe anchorage throughout its entire length, and a slip



The Challenge Is Taken Up Again

by one of the heavily laden porters would have been almost impossible to stop. It was a hazardous undertaking, and there is no doubt about the wisdom of Mallory's judgment in rejecting the route.

But we were lucky. The whole expedition reached the col without mishap. It was the beginning of June; we had sufficient resources in men and material on the North Col for three or even four leisurely attempts upon the summit; the weather was pleasant; we were all in excellent condition. The only fly in the ointment—a pretty big one—was the deep blanket of snow that covered the whole North Face from head to foot. Still, there was a slender chance that the scientific prophets were wrong and that soon we would find ourselves kicking steps up the dreaded Black Band in good firm snow. We became quite optimistic.

Tilman, Lloyd, Smythe and I went up the Northeast Spur with about fifteen Sherpas, and established Camp V at our old site, at 25,700 feet. Lloyd used oxygen. It was the first time that the much-discussed apparatus had received a practical trial on the mountain since 1924. The going, though harder than it had been in 1933, was not altogether discouraging. Smythe and I remained at Camp V with eight Sherpas, while Tilman and Lloyd returned to the North Col with the rest. We stayed for two nights at Camp V owing to a strong wind on the intervening day, and started on up the spur on the second morning.

Above Camp V the conditions grew rapidly worse. Everything was buried deep in soft, feathery snow into which we sank up to our hips. Little buttresses fifteen feet



The Challenge Is Taken Up Again

high, that before had caused us scarcely a moment's hesitation now presented us with really difficult climbing. On one of these I became badly stuck and wasted a lot of time until Smythe found an alternative route. It was terribly heavy work, even for the porters who had merely to follow in the trail we had flogged. It was 4:30 p.m. before we reached the foot of the Yellow Band a little way beyond and directly above the head of the Northeast Spur. It was high time to stop, so as to give the Sherpas time to return to Camp V before dark. Two of them had collapsed a little lower down, and while a platform was being built and our tent pitched two others went down to retrieve their loads. The only concern of the Sherpas was to put our camp high enough to give us a chance of reaching the summit. Frequently they asked us if we had gone far enough. But they were all terribly tired. Even if there had been time it would have been quite impossible to pitch a tent anywhere on the Yellow Band.

The height of our camp was about 27,200 feet. It was considerably more comfortable than our Camp VI of 1933 had been, and we slept very well. We were free from throat troubles and had deteriorated physically very little compared with our state five years before. Nevertheless we experienced the well-remembered feeling of helplessness, of being only half alive.

We started the next morning before the sun had reached the camp and plunged immediately into a morass of powder snow below the Yellow Band. Soon our hands and feet had lost all feeling and we returned to the camp and



The Challenge Is Taken Up Again

waited until about nine o'clock, when there was more warmth in the sun. Then we set off again with the intention of reaching the crest of the Northeast Ridge, now only three hundred feet above us. A direct line was impossible and we climbed diagonally up to the right. The conditions were absolutely hopeless. There was no sign that the snow had consolidated anywhere. An hour's exhausting toil yielded no more than half a rope's length of progress. Nor was the slowness of our progress by any means the most potent factor. Had it been simply a matter of ploughing a way through many feet of soft snow, we might somehow have contrived to get a large party up to Camp VI and, by working continuously in a series of shifts for a week, to force a way along to the top. But in those conditions the smallest movement, even on the moderately steep rocks of the Yellow Band, was excessively dangerous. It was the knowledge that we were climbing beyond all reasonable limits of safety that induced us to abandon the attempt. Even if we had been able to reach the Black Band, to have climbed its difficult rocks would have been as impossible as it would have been suicidal to attempt it. We were now completely convinced that when it is covered by its blanket of monsoon snow, the upper part of the North Face of Mount Everest is absolutely unclimbable. From where we were, near the top of the northeast shoulder, the peak looked very impressive and very frightening.

We returned to Camp V, where we met Tilman and Lloyd on their way up for the second attempt. We were eager that they should continue, so as to corroborate our

The Challenge Is Taken Up Again

evidence. They could make no more impression on the rocks of the Yellow Band than we had made. Lloyd used oxygen all the way from the North Col to Camp VI and on their short climb above. He said that he derived a good deal of benefit from it, but Tilman was going well and the difference in their performance was not sufficient to be in any way conclusive.

The war put a stop to further attempts on Everest. Soon after the conflict the political scene changed and before long it became impossible for people of the Western nations to get permission to travel in Tibet.



THE SOUTHERN APPROACH

DURING THE FIRST FEW YEARS after the war the prospect of renewing the attempts on Everest did not appear favorable. Applications to the Tibetan Government to do so along the old-established route were rejected; and by 1950 the occupation of Tibet by the Chinese Communist Army meant that it would be a very long time before Western travelers would again be allowed to travel in that country.

It was mentioned in the previous chapter that as long ago as 1935 we had considered the possibility of finding an alternative approach to the summit, which would avoid those grim, overlapping slabs on the upper part of the North Face which had defeated so many attempts.

From the mountains above the Kangshung Glacier to the east, we had seen the ridge running up to the summit from the gap (the "South Col") between Everest and Lhotse. This clearly offered a much more promising route up the final pyramid. It was broad and not very steep,



The Southern Approach

while the dip of the strata would favor the climber. But was there any way of reaching the South Col? We had seen that the eastern side was impossible. The western side of the Col was unknown ground.

The 1921 Expedition had discovered in broad outline the geography of the southwestern side of Everest. The three great peaks of the massif—Everest, Lhotse and Nuptse—together with their high connecting ridges, enclosed a basin which Mallory, who discovered it, named the West Cwm. Any approach to the South Col must lie up this hidden valley, which enclosed the whole southern aspect of Everest. But no one had seen right into the Cwm; moreover, no mountaineer who knew Everest could feel at all hopeful that there was a practical route from there on to the South Col. Nevertheless, there was a chance and it was worth investigating.

On the 1935 Expedition we tried to find a way of reaching the Cwm from the north. When we failed we realized that the only way of doing so was by travelling up through the valleys of Nepal; and in those days Nepal, even more than Tibet, was a forbidden land so far as foreigners were concerned.

After the war, however, the Government of Nepal began to relax their policy of not allowing travelers into their country, and in June, 1951, they gave permission for a British expedition to explore the southwestern approaches to Everest. I was invited to take charge of it.

There was very little time to prepare even a small, lightly equipped expedition, and we had something of a



The Southern Approach

scramble getting the necessary supplies packed and shipped to India by the first week of August.

Originally we had decided on a party of only four: W. H. Murray, M. Ward, T. D. Bourdillon and myself. The first two traveled by sea to accompany the supplies, while Bourdillon and I flew to India nearly two weeks later. Just before we left England I received a telegram from the President of the New Zealand Alpine Club asking whether two New Zealanders who were then climbing in another part of the Himalayas might join the expedition. Having had a New Zealander with me on the 1935 Reconnaissance Expedition, I had formed a high opinion of the mountaineers of that country. I welcomed the suggestion though I did not learn the names of the new members of my party until we met them in Nepal. One was H. E. Riddiford and the other Edmund Hillary. Such was the curious manner in which the man who was ultimately to climb Everest first appeared upon the scene.

From Northern India we marched across Eastern Nepal to Namche Bazar in the district of Khumbu, the home of the Sherpas, which lies at the southwest foot of Everest. It was a difficult journey through dense rain forest, very different from our old route across the arid plateau of Tibet. The way was difficult to find along the tiny forest tracks, particularly in the constant, drenching rain of the monsoon.

We reached Namche on September 22, two days after the monsoon was over. From there we made our way in four days to the foot of the great Ice Fall, a frozen cataract,



The Southern Approach

that I had seen fourteen years before, two thousand feet high, issuing from the narrow entrance of the West Cwm. We had realized, of course, that this ice fall was the first serious obstacle to be overcome on any route to the South Col that might exist, for through it lay the only way of reaching the West Cwm. But with time and patience even the most formidable ice falls can be overcome. What caused us far more concern was the danger of ice avalanches falling into the narrow entrance of the Cwm from the hanging glaciers which festooned the tremendous precipices which flanked it.

On September 30, while the others were exploring the lower part of the ice fall, Hillary and I climbed to a point about 20,000 feet on one of the mountains on the opposite side of the valley from which we could study the whole scene and, we hoped, estimate the seriousness of the danger of ice avalanches. We were surprised to find that from this point we could see right up to the head of the West Cwm and the slopes leading from it to the South Col. We had imagined that these would not be visible until we had got right up into the cwm itself. Now, quite unexpectedly, the whole solution to the problem lay before us. We saw at once that there was a perfectly straightforward route up the face of Lhotse to about 25,000 feet, and that from there a traverse could be made to the South Col.

This sudden discovery was most exciting, for it was the answer to the question we had been asking ourselves for so many years. But it appeared to us from where we stood that the middle section of the ice fall was liable frequently



The Southern Approach

to be swept from side to side by huge ice avalanches. If this were the case, it would be inviting disaster to have parties of heavily laden men traversing the danger area again and again, which would be necessary to carry sufficient supplies into the cwm for an attempt upon the mountain.

However, further careful examination and another climb to 20,000 feet further north, showed us that things were not so bad as we had at first supposed. We saw that up the middle of the ice fall there was a route free from the danger of ice avalanches.

Eventually, after a number of adventures, we succeeded in climbing the ice fall. But conditions were very bad, and as we had neither the food nor the equipment with which to attempt to reach the South Col, we decided not to carry a camp up into the West Cwm. We spent the rest of the time before winter set in exploring some of the great areas of unknown country along the southern side of the range.

By the end of 1951, with the discovery that there really was an alternative route up Everest from the south, it seemed that the chances that the mountain would soon be climbed were good. Climbers had often thought this before, but now several important new factors were tipping the scales.

First, there was the new route itself. Undoubtedly in its lower parts this would be difficult, more difficult indeed than the lower parts of the northern route. But on the last 2,000 feet, when the climber is faced by the really deadly effects of lack of oxygen, when he is at the very



The Southern Approach

limits of human endurance, he would probably be on relatively easy ground instead of being faced by those formidable slabs guarding the upper part of the North Face.

Secondly, in the past twelve years or so, tremendous advances had been made in equipment for high-altitude climbing; new materials were available far superior to anything used before the war. These made it possible to reduce the weight of such things as boots, clothing and tents and to afford far greater protection against the wind and cold. Most important of all, the invention of new light metals completely revolutionized the oxygen problem. Now at last an apparatus could be made that would enable the climber to carry all he required without being burdened with excessive weight.

Before we had arrived back in England from the 1951 Reconnaissance, the Swiss had obtained permission from the Nepalese Government to send out an expedition the following year. It was suggested that British climbers might also take part in this, and for some while the possibility of an Anglo-Swiss expedition to Everest was seriously discussed. The Swiss had completed many of their preparations, however, and it was felt unwise to combine two parties at that late stage. It was also impracticable to have two different parties climbing on the mountain at the same time, and the shortness of the period when favorable weather might be expected ruled out the chance of one party following the other. It was finally agreed, therefore, that the Swiss should make their attempt in the spring



The Southern Approach

of 1952 and that the British should start preparations for a full-scale expedition to be made the following year.

As part of these preparations it was decided that an exploratory expedition should be made in the Everest area with the dual idea of learning more about the country, and of testing and training a number of climbers likely to be selected for the Everest expedition of 1953.

I was put in charge of this exploratory expedition, and decided that we might well attempt to reach the summit of Cho Oyu, a 26,750 feet peak eighteen miles west of Everest itself. During the previous year we had seen what appeared to be a possible route from the south. The expedition, which included Hillary, Riddiford and Bourdillon from the 1950 Reconnaissance, as well as Campbell Secord, who had played an important part in its planning, was finally frustrated by a formidable barrier of ice cliffs. Much fresh country was explored, however, and eleven smaller peaks climbed, while Dr. Pugh, who was later to accompany Colonel Hunt's 1953 party, carried out a series of experiments with the latest oxygen apparatus, and went a long way toward solving some of the outstanding problems of acclimatization and high-altitude deterioration.

The Swiss expedition, which arrived in Nepal in April, 1952, was a very strong party led by Dr. Edouard Wyss-Dunant, with René Dittert as leader of the climbing party. Their team included André Roch, one of the most famous Swiss climbers, and Raymond Lambert, a well-known Alpine guide who some years earlier had lost his toes through frostbite but who climbed magnificently in spite



The Southern Approach

of what might have been thought a crippling disadvantage. Six more climbers and two scientists completed the team, the first non-British party to attempt Everest.

Base Camp was set up on the Khumbu Glacier on April 25, and the following day Camp I was established at the foot of the ice fall. Supplies were quickly brought up and on April 26 a small "assault party" began the real work of the expedition—the forcing of a passage up the great ice fall.

Conditions appear to have been much the same as we had found them the previous autumn, with considerable danger from powder snow avalanches. After a hard day's work the party reached a safe place, pitched camp on the ice fall itself, and the following day continued to work their way upward through the maze of ice pinnacles, ridges and towers. At the top of the ice fall they came to a great crevasse which split the glacier from side to side. Finally this was crossed, but only after one member of the party had climbed sixty-five feet down into the crevasse itself, secured a lodgement on the far wall, and then climbed up an ice chimney to the far upper lip of the crevasse. When this had been crossed a rope bridge was constructed which enabled the remaining climbers to cross without too much difficulty.

Finally, after hours of difficult and dangerous work, Camp III was established in the entrance to the West Cwm. The first main problem had been overcome, even though the route through the ice fall was a difficult one for the Sherpas to follow in safety.

Inside the West Cwm conditions were not too bad. More

An improvised rope bridge



members of the party were brought up to Camp III, another camp was set up in the Cwm itself, and Camp V was established below the slopes leading up to the South Col.





By May 25 all was ready for the first attempt on the summit. René Dittert's plan for the first attempt was that Lambert, Flory and Aubert, together with seven Sherpas,



The Southern Approach

should set up Camp VI on the South Col in one day and send back three of the Sherpas. The following day they would put one final camp as high up the southeast ridge as they could, and from there make their attempt on the summit.

The plan had some serious defects. Instead of first climbing up the face of Lhotse where they could put an intermediate camp, they attempted to go straight up the steep, exposed slopes direct to the col in a single day. This was too difficult an undertaking and before they reached the col they were overtaken by nightfall and forced to make an impromptu bivouac. Thus the party were considerably weakened by the time they reached the col.

The expedition was equipped with a novel type of oxygen apparatus which was very experimental and had never been tried out at high altitudes before. It was a failure and the climbers appear to have derived little benefit from it.

On May 27 Lambert, Aubert, Flory and the Sherpa Tenzing set off up the south ridge on what seems to have been intended as a reconnaissance. They carried with them one tent but no other camp equipment. It was originally intended, presumably, to dump the tent high up on a ridge and to return there with some more equipment the next day. But when they reached a point which they estimated at about 27,500 feet, Lambert decided to remain there for the night with Tenzing, while the others returned to the col.

It was a curious decision to make, but I can well under-



The Southern Approach

stand what prompted Lambert to make it. At those great altitudes, when every upward step is a battle, it is hateful to think of going all the way down and coming up again. One becomes obsessed with a great desire to finish the job and get off the mountain as quickly as possible. Nevertheless it must have taken a great deal of courage to spend a night at more than 27,000 feet with no sleeping-bags and no stove even to melt snow for water (for at high-altitudes one suffers constantly from a raging thirst). It must have been a terrible night; one which would have killed most men. They spent most of the night pummelling each other to keep themselves from freezing. The following day they struggled on until they were forced by sheer exhaustion to give up at an altitude of just over 28,000.

On May 30, following this remarkable performance by Lambert and Tenzing, the camp on the South Col was occupied by Dittert, Chevalley, Asper, Hofstetter and Roch and two Sherpas. For the next three nights and days there was a heavy wind, and the climbers were confined to their tents. After this none of the party was able to attempt the summit and the expedition was reluctantly abandoned.

The permission which the Nepalese authorities had given to the Swiss covered the whole of 1952, and in the late summer of that year a fresh expedition was sent out from Switzerland to attempt the mountain after the monsoon. The party, led by Dr. Chevalley, was composed of eight climbers, seven of them professional guides. It included only two members of the former expedition, Chevalley himself and Lambert.



The Southern Approach

It had long ago been suggested that the period immediately following the monsoon would be a favorable time for an attempt on Everest. Most of us who knew the mountain well, however, were not of this opinion. For it seemed highly probable that the great gales that sweep the mountain all through the winter would set in very soon after the end of the monsoon and render life at high-altitudes as impossible as we knew it to be in the early spring. Moreover, the monsoon does not normally end until late September, and by October it seemed probable that above say 25,000 feet the cold would be intense.

So it turned out. The Swiss experienced great hardship from wind and cold, even in the comparative shelter of the Cwm. Their advance was delayed by the tragic death of one of their Sherpas, who was hit by falling ice below the South Col, and they were not ready to launch their attempt until the middle of November.

This time they put an intermediate camp between the head of the Cwm and the South Col, the lack of which had so greatly hampered the previous expedition. On November 19 they carried a camp to the South Col and Reiss, Lambert and Tenzing spent a night there. This, in the circumstances, was a splendid feat of fortitude and determination. But on the ridge above the col they were met by the full force of that deadly wind which no human being, however tough, could be exposed to for long and survive. Once more they were compelled to admit defeat.



SUCCESS AT LAST

WHEN THE SWISS had announced their intention of making the second, autumn, attempt to climb the mountain, preparations for the British expedition to Everest in 1953 had been slowed down. We might, it is true, have sent out the British team even had the Swiss succeeded, but there seemed little point in carrying preparations beyond a certain point while the outcome of the Swiss party's efforts hung in the balance.

As soon as the news of failure reached England, however, preparations for the British expedition went ahead again at top speed. It had been decided early that the British expedition should be a full-scale affair, and after many discussions it was agreed that no less than ten climbers should take part in it, in addition to Dr. Pugh who was to go as physiologist, and Tom Stobart whose task was to take the film of the expedition that was later shown all over the world.

In charge of the expedition was Colonel H. C. J. Hunt,



Success At Last

a mountaineer of considerable experience both in the Alps and in the Himalayas. What is more, as a soldier he had shown himself both an able leader and a staff officer skilled in the planning of large-scale operations.

His party was carefully selected and proved to be a strong team. Hillary and Lowe came from New Zealand to join him in India, while among those who went with him from England were Bourdillon and Ward, both of whom had been on the 1951 Everest Reconnaissance, R. C. Evans and A. Gregory, who had accompanied the Cho Oyu expedition the previous year, and W. Noyce, who had extensive mountain experience in the Alps, and had also climbed in the Himalayas. Major Wylie, an officer in one of the Gurkha regiments and a good mountaineer, was the expedition's organizing secretary, while two men who were newcomers to the Himalayas but who had fine climbing records were also picked to accompany the expedition—G. C. Band and M. Westmacott.

The equipment which the expedition took with it was not only the best available; much of it was specially designed and produced solely for this one task of climbing Everest. Many research stations in Britain had, in fact, carried out special work so that such things as boots, clothes and oxygen equipment should be as effective as human ingenuity could make them.

Two special types of climbing boot had, for instance, been designed for the members of the expedition. One for use up to about 23,000 feet was much like the usual climbing boot but had two layers of leather uppers instead



Success At Last

of one, each specially treated to prevent freezing, while the space between them was packed with fur. For use on the upper slopes of the mountain, a special high-altitude boot was designed with soles made of very hard rubber and two uppers packed with an inch-thick layer of special insulating material. Special windproof cloths were tested out in artificial "gales" at the Air Ministry's Farnborough research headquarters, and both windproof clothing and tents were made from material developed as a result of these tests. Special cookers which eased the problems of melting snow and preparing hot food at high altitudes, special sleeping-bags and air mattresses and concentrated food packed in a new type of plastic wrapping, were all contained among the tons of equipment and supplies which were eventually crated and sent out to India in the early months of 1953.

Three types of oxygen equipment were taken, two for use while climbing, and a third which could be used by climbers in their sleeping-bags. The weight, both of the oxygen equipment itself and of the metal cylinders in which the gas was carried, was much less than before the war, and gave a far greater supply of oxygen. The oxygen equipment added considerably to the number of loads which had to be carried on the mountain. Although quantities were kept to a minimum, the expedition had to arrange for the transport of one hundred and sixty cylinders, thirty sets of oxygen equipment, and eighty canisters which were used with them.

The question of portorage, Hunt realized as soon as

he studied the problem, was one of the most important. From the south, as from the north, the main concern of the expedition leader was to place a small assault party, probably of two men, in the right condition, at the right place on the upper slopes of the mountain, just at the time when the right weather conditions would allow them to make an all-out attempt to reach the summit. To succeed in this, Hunt considered it essential that the move of every man and almost every load on the mountain should be carefully planned in advance.

He therefore drew up, long before the expedition left Britain, a long memorandum, rather like a military "appreciation," in which all the information about one's own and the enemy forces is laid down. In this, he divided the operation into three distinct phases. First came stage one of the "build-up," during which large quantities of supplies and food would be moved up from the Base Camp on the Khumbu Glacier to an Advance Base at the head of the West Cwm. The main problem at this stage would obviously be the working out of a safe route through the ice fall. To facilitate this operation the party was equipped with a sectional ladder made of light-weight metal, which was long enough to bridge a twenty-five foot gap.

The objective of the second stage of the "buildup" operation was the establishment of an Assault Camp on the South Col, an operation which involved the carriage by porters of large quantities of supplies up and across the Lhotse face. To make this possible it was necessary to put two small, intermediate camps on the Lhotse face itself.



Success At Last

Establishment of the Assault Camp on the South Col was to be followed by the assault which it was planned would be made by four-man teams each consisting of two climbers and two Sherpas. Each assault team, according to the plan, would move out from the Advance Base, spend one night on the South Col and, if necessary, a night at the intermediate camp on the Lhotse face. What happened above the South Col was dependent on the condition both of the climbers and of the weather. Each team was to be self-supporting once it left the Assault Camp, however, so that it could, if necessary, pitch a higher camp on the southeast ridge and make the final assault from there. In all, Hunt estimated, it would be possible for three separate attempts to be made to reach the summit.

These plans had to be modified on the mountain, but in general it is remarkable how well they were followed. A great deal of the success of the expedition must, in fact, be credited to the carefully laid plans in which every detail was thought of in advance.

Early in March all the members of the expedition were assembled in Katmandu, the capital of Nepal. Some of the party had gone out by sea, while others had followed later by air. Some three hundred porters were hired to carry the five hundred packages into which the expedition's supplies had been arranged, and by the end of the month Base Camp was set up near the monastery of Thyangboche.

For three weeks the members of the expedition acclimatized themselves in the neighborhood, climbing several peaks of more than 19,000 feet. Then, on April 13,

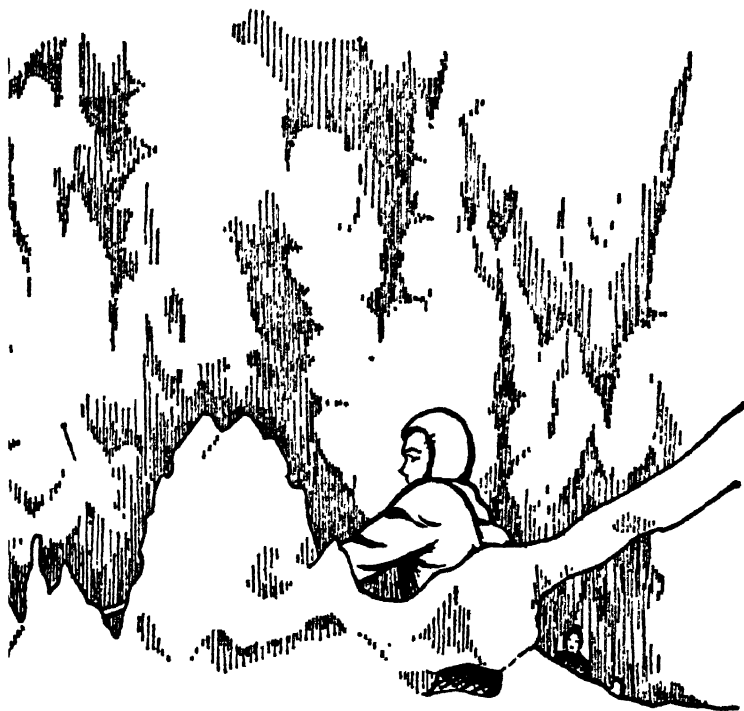




Hillary, Band, Lowe and Westmacott set out on the arduous work of preparing a route through the great ice fall. That task, and the job of moving loads up into the West



They cut their steps with ice axes.



Cwm to the Advance Base, which was set up at 21,000 feet, took four more weeks, and it was only on May 18 that the first stage of Hunt's planned "build-up" was com-



pleted and the expedition was ready to move supplies up to the Assault Camp on the South Col.

Members of the expedition had already reconnoitered the Lhotse face, fixed ropes on the steeper portions, and set a camp half-way up the face itself so that part of the second phase of the build-up had also been completed by this time.

The Lhotse face turned out to be a tougher proposition than had been expected. Lowe bore the brunt of the work at this stage, and it was very largely due to his determination and skill that the difficulties were overcome. But it was an anxious time, and as the days went by it began to look as if the expedition would fall seriously behind its all-important time-table. The weather too was far from good. Camp VIII was not fully established on the South Col until May 24.

The first assault which consisted of Bourdillon and Evans supported by Hunt and two Sherpas came up to the South Col on that day. It had been decided that Bourdillon and Evans should make their attempt direct from the Col. It was a climb of over 3,000 feet, which was far more than had ever been attempted at that altitude. But they were using what is known as the "Closed Circuit" oxygen apparatus, which, though somewhat experimental, gave the climbers a great deal of oxygen thus enabling them to climb fast. Bourdillon and his father had been largely responsible for its design, and the former had great faith in it.

Bourdillon and Evans set out from the South Col at



Success At Last

seven-thirty on May 26. They succeeded in climbing the first 1,300 feet in an hour and a half, a very fast rate for that height, and their prospects looked very good.

As they went higher, however, conditions grew worse. Much of the ridge was not particularly difficult, but fresh snow called for great care and, as the morning wore on, the weather became worse. Then they had trouble with their oxygen equipment, trouble which they overcame without too much difficulty before continuing up the ridge. Soon after mid-morning they came to a section of the ridge more difficult than anything they had met, steep and covered with snow in a particularly dangerous condition. There was at least four hundred feet of this difficult portion and it must have been one of the most gruelling four hundred feet that either man had ever climbed. Then, without warning, the slope eased off. Bourdillon and Evans suddenly found themselves standing on the south summit of Everest, 28,700 feet up, higher than any man had ever climbed before. It was just one o'clock.

Beyond the South summit they looked along a narrow, icy crest leading to the main peak of Everest, little more than a quarter of a mile away. We had always believed that this final ridge might be difficult to surmount and we had discussed it a great deal. The close view certainly confirmed this belief. It was clear that even though they were so close to the top of Everest, and only three hundred feet below it, it would take some hours at least to reach it. Evans' oxygen apparatus was again giving trouble and it was obvious that if he were to go on he would run



the grave risk that he would soon be deprived of the oxygen upon which he was wholly dependent for his life.

Reluctantly, they had to turn back. It was just as well that they did so, for they were as tired as men could be who must still keep moving and still take care. As it was, above the South Col, in a steep couloir, disaster was only just averted when one of them slipped, pulling the other man from his steps, and they were only saved by a tremendous physical effort and great skill. Their attempt had failed, but it was a magnificent effort which ranks with any other in the whole of this long story of Everest.

On the day that Bourdillon and Evans had reached the South Summit, Hunt and Da Namgyal, one of the Sherpas, using oxygen, had carried heavy loads of equipment up the southeast ridge to a height of about 27,300 feet, where they had dumped them for the use of the second assault party. This was composed of Hillary and Tenzing, who had meanwhile reached the South Col together with Lowe, Gregory and a number of Sherpas.

Most of us who have taken part in the attempts on Everest had hoped that when the mountain was eventually climbed, one of the Sherpas, who had been our gallant and devoted partners through the whole great enterprise, would be at the summit to share fully in the ultimate success. That was one of the main reasons why Tenzing was chosen to accompany Hillary in the second attempt. And no one more than he deserved to share the honor. He first went to Everest with me in 1935, and since then he had taken part in four more Everest expeditions. In the years between he had accompanied a great many other expeditions



Success At Last

to different parts of the Himalayas, and he had won for himself a splendid and well-deserved reputation. The previous year he had climbed to within 1,000 feet of the summit. None of his fellow Sherpas had quite his drive and enthusiasm.

Everything was now ready for the second assault. Then, as so often on Everest, the weather intervened. The men on the South Col awoke on the morning of the 27th to find a high wind hammering at the tents, and the temperature some twenty-five degrees below zero. There was no possibility of starting up the southeast ridge in such weather.

The following morning it was still blowing, though not so hard as on the previous day, and it was decided that Lowe and Gregory would, as arranged, start off up the southeast ridge to help to establish Camp IX. Of the three porters who were to have accompanied them, two were ill, so that the loads had to be redistributed and Lowe, Gregory and the one remaining Sherpa, Ang Nyima, set off carrying more than forty pounds each.

An hour later, Hillary and Tenzing set out after them, carrying about fifty pounds each, but able to take advantage of the steps which the earlier party had made. Soon after midday Hillary and Tenzing caught up the other party and shortly afterward the five men reached Hunt's dump of supplies. They could, they decided, pitch the final camp even higher. So between them they shouldered the additional loads from the dump and went on with up to sixty-three pounds on their backs.

The ridge was steep but not excessively difficult. Everyone was using oxygen. As they climbed higher they be-





Hillary and Tenzing set off up the ridge.

Success At Last

came increasingly worried by the fact that there appeared to be no ledge on which they could pitch camp. Then, at about two-thirty, Tenzing remembered that the previous year he had noticed a possible campsite slightly to the left of the ridge. They traversed across to it and found a narrow ledge, fairly flat but split by a step in the middle. Here, at a height of about 27,900 feet, only some 1,100 below the summit, the loads were dumped and Lowe, Gregory, and Ang Nyima set off down the ridge to the South Col, leaving Hillary and Tenzing in their lonely eyrie.

The two men set up the tent, using some of their spare oxygen bottles as anchors to which they attached the guy-ropes, and settled down inside. The oxygen supplies, Hillary found, were smaller than he had expected, and he was forced to make certain adjustments to the apparatus, so that what oxygen they had would last them for the time which he estimated would be needed to reach the summit the following day and return to the South Col.

As darkness fell, they slipped into their sleeping bags and with the aid of a roaring primus stove concocted themselves a meal of sardines and crackers, dates and crackers, jam and honey, and canned apricots which first had to be thawed out over the stove. Only when they made a sudden move did the lack of oxygen cause them to gasp for breath. The effects of the altitude were most noticeable, however, when it came to sleeping—with oxygen they could doze peacefully, but without it they woke, and felt cold and miserable.

Soon after they had pitched camp, the wind rose, and



the tent was subjected to intermittent buffets which Hillary feared might drag it from its moorings. The thermometer dropped to minus 27 degrees. During the night the wind died down, and when the two men looked out of their tent at six-thirty they saw that the morning was clear and calm.

Above them, shining in the early morning sunlight, was their first objective, the South Summit, which had been reached three days earlier by Bourdillon and Evans. They moved slowly but steadily upward, taking in turns the more arduous job of going first.

They reached the South Summit at nine o'clock and looked along the unclimbed ridge in front of them which rose toward the top of Everest. They cut a seat for themselves just below the crest of the little peak they were on, and removed their oxygen masks. Then Hillary had the problem of working out just how much oxygen they had left, and of calculating how many hours' going it would give them. He estimated that they had enough for four and a half hours.

Then he studied the ridge ahead. Its crest was formed by great cornices, masses of snow and ice which curled over to the right and would break away under the weight of human beings. To the left of the crest itself, steep snow slopes dropped down to the rock precipices above the West Cwm. The only chance of tackling the ridge, Hillary realized, lay in cutting a line of steps along the snow between the crest of the ridge itself and the steep rock slopes on the left. And that, he knew, would be possible only if the snow was firm and hard.



Success At Last

"As my ice-ax bit into the first steep slope of the ridge," he wrote later, "my highest hopes were realized. The snow was crystalline and firm."

Hillary and Tenzing set off along the ridge. Hillary went first, cutting the steps, safeguarded by Tenzing who would, in his turn, be safeguarded by the rope as he moved up. At places, where the only route was right on the edge of the great rock precipices to their left, they could actually look down, almost directly it seemed, onto Camp IV in the Western Cwm some 8,000 feet below them. The weather was fine, though a strong wind was most of the time blowing fine snow off the crest of the ridge itself.

After an hour's steady going, they reached a difficult step, a rock barrier about forty feet high. It could not be climbed directly, and the problem was solved only when Hillary managed to work his way up the narrow gap between the rock itself and a huge mass of snow which lay to one side of it.

Above this, they resumed their steady step-cutting. They could not see the summit itself, and every small hump which they reached proved, as it does on lesser mountains, to be merely the forerunner of something higher still. Hillary had been cutting steps for more than two hours. They were moving more slowly, and Hillary began to wonder just how long they could keep up their present pace.

Then, unexpectedly, they found that instead of rising, the ridge ran horizontally. They looked down and saw



Success At Last

in front of them, not the ridge but the North Col from which the first Everest climbers had struggled up more than thirty years before. They could see the Rongbuk Glacier and, far away, the distant brown plains of Tibet. The two men were standing on the top of Everest.

They shook hands, they thumped one another on the back, and then Hillary, taking from inside his shirt the camera which he had carefully kept from freezing during the ascent, photographed Tenzing waving the ice-ax to which he had tied the United Nations, British, Nepalese and Indian flags.

Tenzing made a small hole in the snow and put in it a number of small token offerings to the Gods. Hillary buried a small crucifix that Hunt had asked him to take to the summit.

It does not require a great deal of imagination to understand the intense joy and excitement that the climbers were feeling as they performed these simple ceremonies. This was the culminating moment of the long adventure that had started more than thirty years before, an adventure which, in his heart, every mountaineer had shared. Providence had chosen them, Hillary and Tenzing, from among all men to bring the story of the adventure to a triumphant climax. Soon, they knew, their names would resound to every corner of the world; for this moment they were assured a place of honor in the history of human endeavor.

One often used to hear it said that it would be sad when Everest had been climbed because its summit was the last point on the earth's surface still to be reached by





On top of the world

man. No explorer would agree with this statement; to the mountaineer it is sheer nonsense.

For example, in the highlands of Central Asia, there are scores of peaks exceeding 25,000 feet in height. These giants have been attempted by expeditions from many nations for nearly a century; yet barely half a dozen of them have been climbed. It must be remembered, too, that those that have been climbed are among the least difficult; many of the great number that remain will demand a very much higher standard of skill.

Moreover, it is not the great giants but the peaks of more modest height, say between 18,000 feet and 25,000 feet, that offer the main field of mountaineering enterprise in Central Asia. While the former can be counted in scores, the latter may be numbered in thousands. The great majority of them are unnamed and unmeasured. Very many are not marked on any map. Some of them are more formidable than any of the giants; indeed, I can think of many I have seen which seem to be beyond the scope of even the most modern mountaineering technique.

The climbing of Everest will, I believe, open a new era of mountaineering in the Himalayas. Just as the first ascent of Mount Blanc preceded by decades the "Golden Age" of Alpine climbing, so future generations may come to regard this ascent as the beginning of a far longer "Golden Age" of Himalayan mountaineering. No, there is surely no lack of scope for fresh enterprise. Our successors for generations to come will find plenty.



APPENDIX

A. FOOD

ON THE APPROACH MARCH it was possible to obtain a certain amount of fresh food such as mutton, chickens, eggs, and vegetables and it was the policy to use this in preference to canned food, partly to cut down the amount of supplies to be carried and partly to make a change of diet.

Above the Base Camp the expedition relied entirely upon canned food. Up to an altitude of about 21,000 feet the climbers could eat a fairly normal diet; for example, oatmeal or some form of compact cereal, bacon or sausage, crackers and marmalade for breakfast; tongue, ham or corned beef, for lunch; soup, meat and vegetable stew and canned fruit for supper.

At extreme altitudes (at or above 23,000 ft.) the problem of feeding became very difficult. Due to the lack of oxygen the climbers had little appetite and usually had to force themselves to eat. Fat in any form was difficult to digest and induced a feeling of nausea. A man living at these great heights tends to have the same distaste for food as a man suffering from sea-sickness. This made it very difficult for the climbers to eat enough



Appendix

to keep up their strength, and was one of the causes of the rapid physical deterioration from which they suffered at high-altitudes. Sugar was one of the easiest things to eat, and a large part of the food eaten consisted of such things as sweet cookies, candy and chocolate. Cooking, of course, became a laborious business, since water had first to be obtained by melting snow.

Owing to the extremely rapid evaporation of moisture from the body at high-altitudes it was vital that the climbers should drink enormous quantities of liquid and any failure to do so resulted in rapid exhaustion. At the high camps a very large part of the climbers' time was spent in melting snow and ice for water and making tea, cocoa and coffee.

B. EQUIPMENT

Ice ax

This is a small ax primarily for cutting steps in hard snow and ice; it is also used as an anchor to check a slip, and for detecting crevasses in a glacier. The shaft is about three feet long, and the ax has a mattock-like blade on one side and a pick on the other. The blade is used for cutting steps in hard snow, and the pick for cutting steps in ice.

Rope

This is always used in mountaineering for tying members of the party together, so that if one should slip or



Appendix

fall into a crevasse he can be saved by his companions. Formerly manila rope about one inch in circumference was used. This has been largely superseded by nylon rope, which is much stronger and more flexible. The length of rope between each member of the party varies according to the terrain. On glaciers, about thirty feet between each member usually suffices.

Another use for rope in the climbing of a great mountain such as Everest is in the construction of a handrail up the steeper parts of the mountain between camps, so that laden men can pass up and down in ease and safety; for example, the slopes leading up to the North Col were nearly always roped in this way.

Crampons, or ice-claws

Each crampon consists of a framework attached to the boot rather like a skate, with eight or ten sharp spikes two and one-half inches long sticking vertically down from the frame. The use of crampons enables the climber to move about on steep slopes of ice and hard snow without cutting steps. Where, however, the slopes are so steep that it is necessary to cut steps even when wearing crampons, the claws give greater security than would the nails of a boot. On certain types of snow, however, the use of crampons can be very dangerous.

Ladders

These are not normally used in ordinary mountain-



ceering, but in the ascent of a great mountain such as Everest they are sometimes very useful to supplement the rope handrail mentioned above, either to hang over a vertical section (as was done on the North Col), or to bridge a wide crevasse (as was done on the ice fall leading into the West Cwm).

Tents

For the approach march to Everest and also at the Base Camp large tents were used, but for the higher camps small lightweight mountain tents were needed. These measured about seven feet long by four feet wide by four feet high, and weighed twelve to sixteen pounds each. They were made of a light windproof canvas, with a sewn-in groundsheet. In 1933 and on all subsequent expeditions a large double-skinned, dome-shaped tent was used. The area of the floor inside this was about fourteen feet in diameter. The tent was constructed with a light wooden framework, over which an outer skin was fitted, while the inner skin was hung from the framework. This type of tent as first developed for use in the Arctic. The air space between the two skins afforded wonderful insulation from the cold outside. It was a very laborious job to erect these tents, but once erected they were as snug as a hut and could comfortably accommodate a dozen climbers. They were used particularly at Camp III at the head of the East Rongbuk Glacier, and at Camp IV on the North Col. The great protection that they afforded from the weather gave the expeditions that used them a

Appendix

tremendous advantage over their predecessors. The weight of these tents was about one hundred and ten pounds.

Sleeping Bags

These are quilted sleeping bags filled with eiderdown or goosedown. In cold conditions at high altitudes two bags are used, one fitting into the other.

Mattresses

Three types have been used:

(a) Sponge rubber mats, three feet, six inches long by two feet, six inches wide.

(b) Sheepskin or reindeer skin.

(c) Pneumatic mattresses. These have been increasingly used in recent years because the quality and durability have been improved. They provide excellent insulation from cold striking up from below.

Stoves

Primus stoves are used for all cooking above the altitude at which wood fuel is obtainable. The food is heated and cooked in aluminum pots. At high-altitudes, of course, the only way of obtaining water is to melt snow and ice, and it takes much longer to melt a pot of snow than to bring the water to the boiling point when melted. At high-altitudes water boils at a much lower temperature than at sea level, so that it is never possible to get a really hot drink.



Clothing

The main principle in keeping warm in extreme cold is to retain a lot of air space between the body and the clothing. For this reason a number of loosely-knitted sweaters and pants are much more effective than a single heavy garment. Outside this woolen wear, a suit of wind-proof material (closely woven cotton) is worn. A balaclava helmet covered by a windproof hood protects the head, and woolen gloves covered by windproof gloves protect the hands. Sometimes silk gloves are worn underneath.

Since the war a very important item of clothing has been introduced. This is a quilted suit stuffed with eider-down or goosedown, and consists of a jacket and trousers. It is very light and extremely warm. Quilted helmets are also used.

Boots

Before the war ordinary climbing boots were worn. These were studded with special climbing nails, and were large enough to take three or four pairs of thick woolen socks. For the 1953 expedition special boots were constructed. They were made of very light fabric stuffed with special insulating material, and looked more like boxing gloves than boots. In this way climbers had no difficulty in combating frostbite, which had always been a very serious menace on former expeditions.

Oxygen

This question is discussed in Chapter III of the text.



Appendix

On the expeditions of the 1920's and 1930's the only oxygen apparatus available was so cumbersome and inefficient (the oxygen was contained in heavy steel cylinders) that it is doubtful whether its beneficial effect compensated for its weight. Both for this reason and on account of the prejudice against oxygen, all the attempts to reach the summit in those years, with the exception of two, were made without its assistance. Since the war, however, the development of lightweight alloys and a considerable amount of research resulted in the production of an apparatus which was so light and so efficient that it completely revolutionized the problem of climbing and living at extreme altitudes.

C. FROSTBITE

Frostbite is caused by the freezing of the blood. When this occurs, unless the circulation is restored very promptly, the tissue (flesh) of the affected part dies and cannot be restored to life. The dead tissue then tends to rot, in which case gangrene sets in, and the poison from this is liable to spread throughout the victim's body. It may even cause death.

The first thing to do in the treatment of frostbite is to attempt to restore the circulation in the affected part by persistent massage. If possible it is desirable to restore the vitality of the whole or at least to minimize the extent of the damaged tissue. If this treatment is not wholly successful, the next thing is to prevent the dead tissue

Appendix

from rotting by the application of dry antiseptic dressings as in the treatment of ordinary wounds. Such drugs as sulfonamide are very effective for this purpose. Eventually the frostbitten limb must be amputated.

The parts of the body most liable to become frostbitten are the hands and feet since they are the farthest from the heart and the blood supply to them is weakest. The parts of the body where the blood supply is greatest (the nose for example) are not likely to become frostbitten.

To prevent frostbite it is, of course, important to keep the limbs warm, but it is equally important to avoid wearing tight garments which constrict the circulation; a tight sleeve or cuff, for example, is liable to cause frostbite in the fingers, and a tight or badly fitting boot may easily cause the feet and toes to become frostbitten.

The first sign of frostbite is the loss of all feeling in the affected part. The flesh turns dead white, and there is usually a purple rim between the frostbitten area and the healthy flesh. Much later the frostbitten flesh turns black. Frostbite is terribly painful.



GLOSSARY

Aneroid barometer: a portable barometer which registers atmospheric pressure without the use of mercury.

Avalanche: a large mass of snow or ice sliding rapidly down a mountain slope.

Col: a depression or gap in a mountain range or ridge between two peaks (e.g., "North Col"). The term "pass" is used for a col when it is habitually crossed by mountaineers or travellers.

Cornice: an overhanging mass of snow or ice situated along the crest of a ridge. This feature is caused by the action of the prevailing wind.

Couloir: a steep gulley in a mountain side (e.g., "The Great Couloir" on the North Face of Everest).

Crevasse: a crack or fissure in the surface of a glacier.

Cwm: the upper part of a narrow valley enclosed by steep mountain sides, (e.g., "The West Cwm"). Pronounced "comb."

Face: the flank or side of a mountain. The simplest example of this is a pyramid which has four "faces," separated by four ridges.

Glacier: a glacier is formed by snow falling in a valley to such a depth (often hundreds or even thousands



of feet) that the weight of the snow above crushes the snow beneath into ice (in the same way as you can crush a snowball into ice by squeezing it with your hand). The mass of ice thus formed flows slowly down the valley, so slowly that you cannot actually see it moving, and resembles a broad, frozen river. When the glacier reaches lower levels, the supply of ice from above cannot keep pace with the melting and so ends. Many of the great rivers of the world have their origin in glaciers.

Gurkhas: a mountain people from Nepal, famous for their fighting qualities. For nearly a century they have served as mercenaries in the Indian Army.

Hanging glacier: a glacier formed in a corrie or hollow in a mountain face. The ice overflows the edge of the corrie and remains hanging until parts of it break off and fall in the form of an "ice avalanche."

Ice fall: where a glacier passes over a steep drop in the floor of its valley it breaks up into a tangled mass of huge blocks of ice, split by great crevasses. This is known as an "ice fall," which in effect corresponds to rapids in a river.

Monsoon: in India, the southwest wind, warm, and bringing heavy rainfall.

Moraine: the debris, resulting from the weathering of the rocks of the mountains bounding a glacier, that has fallen onto the surface of the ice and been stretched in long lines by the downward movement of the glacier. Lower down, owing to the melting of the ice,



Glossary

this debris becomes deposited in large quantities at the sides and at the end of the glacier so that it often presents the appearance of a wilderness of stones and boulders.

Theodolite: an instrument for measuring horizontal and vertical angles.

Traverse: a path cut across the face of a cliff or a mountain wall.



